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INTRODUCTION

The siddha system of medicine is on today enhancing the unique importance as well as genuine significance with full understanding of a part of Saiva Siddhanta and has a heritage of 12000 years.

Siddhars who attained Siddhi are those eternal people who had been well versed in siddha medicine. They believed and probed that siddha medicine is the one which prevents the body and mind from a diseased condition by curing the present disease and by working also as a rejuvenating process for further prevention of the same by treating the whole human body as a whole.

*"மறுப்பது உடல் நோய் மருந்தெனலாகும்
மறுப்பது உளநோய் மருந்தெனச் சாலும்
மறுப்ப தினி நோய் வாராதிருக்க
மறுப்பது சாவை மருந்தெனலாமே"*

- திருமூலர் எண்ணாயிரம்

"Sound mind in a sound body is a sound maxim" and it is a well known proverb regarding good maintenance of one's good health.

*The siddha system of medicine is based on the Tridhoshic theory namely **Vali, Azhal and Iyam**. It affirms that along with the gross material body there is a subtle body. Any disease affecting an individual normally by nature involve first of all which is unavoidable and pierce this subtle envelope if it is quiet weak. The Tridosha concept is based on*

the three vital humours namely Vali, Azhal and Iyam which again are found in the five vital natural elements namely Prithvi, Appu, Theyu, Vayu and Aakayam.

The three humours form the connecting link between the microcosm of man and macrocosm of universe. These Vali, Azhal and Iyam are things commonly contributed by the intake of all the nutritive fluids derived from the solid, liquid, gaseous food materials by the individuals. This theory is applicable to all the walks of medical field but it is a well known principle of the fundamentals of Indian medicine only. Any alteration occurring in the macrocosm will reflect in the microcosm, and the mukkutram will cause disease in the human body.

This is illustrated by Thriuvalluvar in Thirukkural,

*"மிகினும் குறையினும் நோய் செய்யும் - ஞாலோந்
வளி முதலாய் எண்ணிய மூன்று"*

According to the manuscripts as well as the evidences found out, disease may occur due to the derangement of the either the external factors or internal factors.

The internal factors include constitutional rhogas occurring due to the disturbance of the three humours, the seven thathus, the three Gunas and the Malas the secretive and excretive wastes.

The external factors include seasonal changes or climatic variations or unlikable things like drug abusing and external stress ending in psycho somatic disorders.

Coming to the examination and investigation points of view, application of pulse reading in the diagnosis of a disease is a top most aspect of the siddha system of medicine which formed through the disturbed thathu either individually or in combination with one or two of the remaining thathus.

*There are also additional test methods to be adopted and they are, body as a whole, voice, tongue, eye. excreta, urine, external appearance of the patient which are collectively known as “**Enn vagai thervugal**” which is also a very compulsory procedure for confirmation of above diagnosis. Further tests are also employed on the principles of which is called as “Neerkuri” and “Neikuri” for further more urine analytical study in siddha method of confirmation of the diagnosis.*

SIDDHA PHYSIOLOGY

The Eastern physiology (Siddha physiology) is purely associated with religion and psychology unlike the western one, which is based on anatomy, which is said to determine the physiological principles involved there in.

“Man is said to be microcosm

And the world is macrocosm”.

According to the above quoted lines our human body is nothing but the miniature of the solar system.

Siddhars explained the human physiology with the unique subtle knowledge.

It involves,

<i>96 Thathuvas</i>	–	<i>96 Basic elements</i>
<i>7 Udal Kattugal</i>	–	<i>7 Somatic compounds</i>
<i>14 Vegangal</i>	–	<i>14 Reflexial functions</i>
<i>6 Suvaigal</i>	–	<i>6 Tastes</i>
<i>4 Udal Thee</i>	–	<i>4 Body fires</i>
<i>3 Udal Vanmai</i>	–	<i>3 Immunities</i>

The living and non – living, which are present both in the microcosm and macrocosm has the 96 basic elements. These elements are responsible for the,

- 1. Creation*
- 2. Protection and*
- 3. Destruction of life*

All of which is mediated through the pancha poothic and mukutra theory.

96 Basic elements

These are the constituent principles in nature. The enumeration of these thathuvas begins from the lowest and the grossest which is the Earth.

Those Ninety six thathuvas are,

(1) The five elements – I

There are five elements in nature. They are the original basis of all the corporeal things which when die out (or) destroyed resolve themselves again into elements.

All these five elements are found in all bodies in a transformed conditions by a process of transmutation and unions.

They are,

Table – 1

<i>Earth</i>	<i>Bone, flesh nerves, skin, hair.</i>
<i>Water</i>	<i>Bile, Blood, semen, secretion and sweat</i>
<i>Fire</i>	<i>Hunger, thirst, sleep, beauty and indolence</i>
<i>Vayu</i>	<i>Contraction, expansion and Motion</i>
<i>Akasa</i>	<i>Interspaces of the stomach, heart, neck and the head.</i>

Every element will be found mixed up with the other five elements.

One element cannot be viewed dissociated from the other elements also present.

*The process of combination of each of these parts with the retained half in the other is known as “**Five fold combination**”.*

(2) Five sense organs:

- *Mei*
- *Vai*
- *Kan*
- *Mooku*
- *Sevi*

(3) *The five object of sense*

- *Sparisam*
- *Suvai*
- *Parvai*
- *Vasanai*
- *Osai*

(4) *The five organs of action*

- *Vai*
- *Kaal*
- *Kai*
- *Karuvai*
- *Eruvai*

(5) *The five organs of perception*

- *Vasanam*
- *Kamanam*
- *Thanam*
- *Visarkam*
- *Anandam*

(6) *The four intellectual faculties*

- *Manam*
- *Puthi*
- *Sitham*
- *Agankaram*

(7) The ten nerves

- *Idakalai* – *From right big toe runs opposite side to the left nostril.*
- *Pinkala* – *From left big toe runs opposite side to the right nostril.*
- *Sulumunai* – *Passes through both nostrils.*
- *Sikuvai* – *For swallowing of food and water in the uvula.*
- *Puruden* – *It locates at right eye.*
- *Kanthari* – *It locates at left eye.*
- *Atthi* – *It locates at right ear.*
- *Alambudai* – *It locates at left ear.*
- *Sangini* – *Vagina or tip of the penis.*
- *kugu* – *It locates anus.*

(8) The five status of the soul

- *Nanavu*
- *Kanavu*
- *Urakkam*
- *Perurakkam*
- *Uyirpadakkam*

(9) The three principles of moral exit

- *Malam*
- *Siruneer*
- *Viyarvai*

(10) *The three cosmic qualities*

- *Sathuva Gunam*
- *Raso Gunam*
- *Thamo Gunam*

(11) *The three Humours*

- *Vali*
- *Azhal*
- *Iyam*

(12) *The three regions*

- *Gnayiru Mandalam*
- *Thingal Mandalam*
- *Akkini Mandalam*

(13) *The eight predominant passions*

- *Kamam*
- *Kurotham*
- *Ulopam*
- *Moham*
- *Matham*
- *Marchariam*
- *Idumbai*
- *Ahankaram*

(14) *The six station of the soul*

- *Moolatharam*
- *Suvathitanam*
- *Manipooragam*
- *Anagatham*
- *Visuthi*
- *Akkianai*

(15) *The ten vital airs*

- *Pranan* – *Regulates the respiratory system.*
- *Abanan* – *Helps excretions from the lower organs, evacuation and generation.*
- *Vyanan* – *Principle of circulation of energy throughout the entire nervous system.*
- *Udanan* – *Regulates the functions of higher organs of the brain.*
- *Samanan* – *The principle of digestion and assimilation.*
- *Nagan* – *Helps in expanding and contracting the body And also in speaking.*
- *Kurman* – *Causes horripilation and winking.*
- *Kirukaran* – *Assists the digestive process and causes anger, sneezing, etc.*
- *Devadattan* – *Is responsible for sitting, standing talking, running, perspiring, yawning etc.*

- *Dhananjayan – Remains after death causing the body to swell, to separate the sutures of the skull etc.*

17) The five cases of sheaths of the soul

- *Annamaya kosam*
- *Piranamaya kosam*
- *Manomaya kosam*
- *Vinganamaya kosam*
- *Aanandamaya kosam*

Udal kattugal

According to thirumanthiram there are seven udal kattugal, this is explained as

"இரசம் உதிரம் இறைச்சி தேரல் மேதை
மருவிய வத்தி வாழும் பெரு மச்சை
பரவிய சுக்கிலம் பழநம் உபாதி
உருபம லாறுடல் ஒன்றெனலாமே"

➤ <i>Saaram</i>	–	<i>Chyle</i>
➤ <i>Chenneer</i>	–	<i>Blood</i>
➤ <i>Oon</i>	–	<i>Muscle</i>
➤ <i>Kozghuppu</i>	–	<i>Fat and Lymph</i>
➤ <i>Enbu</i>	–	<i>Bones and Cartilages</i>
➤ <i>Moolai</i>	–	<i>Bone marrow, brain</i>
➤ <i>Sukkilam and Suronitham</i>	–	<i>Reproductive secretion</i>

These are responsible for the entire structure of the body and maintain the functions of different organs and vital parts of the body. They play a very important role in the development and nourishment of the body.

14 .Vegangal

They were nothing but the reflexes and protecting mechanism of the body. They are abanavayu, Thummal, Siruneer, Malam, Kottaavi, Pasi, Neervetkai, Irummal, Ilaippu, Thookam, Vandhi, Kanner, Sukkilam.

Aru suvaigal

It is the peculiar sensation caused by the contact of soluble substances with the tongue. These must be taken in a correct proportion for healthy living since these have impact over the humours of the body.

The combination of two pootha forms a suvai and also a Uyir thathu.

Table – 2

<i>Suvai</i>	<i>Pootham</i>	<i>Increases Uyirthatu</i>
<i>Inippu</i>	<i>Mann + Neeir</i>	<i>Iyam increased</i>
<i>Pulippu</i>	<i>Mann + thee</i>	<i>Azhal, Iyam increased</i>
<i>Kaippu</i>	<i>Neer + thee</i>	<i>Azhal, Iyam increased</i>
<i>Uppu</i>	<i>Katru + Vin</i>	<i>Vali increased</i>
<i>Karppu</i>	<i>Katru + thee</i>	<i>Azhal, Vali increased</i>
<i>Thuvarpu</i>	<i>Mann + Katru</i>	<i>Vali, Iyam increased</i>

Thus we can alter the level of three humours by giving the particular suvai.

Udal vanmai – 3

It speaks about one's reason for having healthy contour of the body. They were,

1) Iyarkai Vanmai – Native immunity

It is the resistance to infections which an individual possesses by virtue of his genetic and constitutional make – up.

2) ***Seiyarkai vanmai – Acquired immunity***

It is of two types

- a. **Active immunity** – It is the resistance developed by an individual as a result of an antigenic stimulus.*
- b. **Passive immunity** – The resistance that is transmitted passively to a recipient in a ready made form.*

4) ***Kala vanmai – Herd immunity***

Developing the immunity and stamina according to the season and environment. This refers to the overall level of immunity in a community. Eradication of communicable disease depends on the development of the high level of herd immunity.

Udal thee – 4

These are the main anabolic activation to supply energy to the demands of the body by the process of digestion and various cellular activities.

They are

- *Samaakini*
- *Vishamaakini*
- *Thekshakini*
- *Manthakini*

Body constitution

The constitution and character of the individual is determined by the two main factors.

The humour which is determined by (i) diet and (2) The environmental factor.

This body constitution is determined in the womb itself. According to this body constitution dehgi is classified as

Typical -3*Vadha deggi**Pitha deggi**Kaba deggi****Mixed – (6)****Vatha Pitha dehgi**Vatha Kaba dehgi**Pitha Vadha dehgi**Pitha Kaba dehgi**Kaba Vadha dehgi**Kaba Pitha dehgi*

When the above explained physiological aspects undergo any change in our body, they exhibit as pathology and its disease status.

Dividing mechanism of jeeva thathu into Vali, Azhal and Iyam

In our body there are several supports to the soul for the existence and continuation of life called pranan. This pranan stimulates the low very active centers viz; the brain and the heart.

*Hypothalamus which is called **Aakkini** the most important cell stations which finally control viscera and other autonomic activity.*

(1) It controls autonomic nervous system

(2) It regulates the secretion of anterior and posterior pituitary

(3) It also related to the control of pineal gland

Pathways descend from the hypothalamus to control the sympathetic and parasympathetic activity. The principle descending pathway carrying sympathetic fibers from the hypothalamus is uncrossed traversing the lateral segmentum of the brainstem and the lateral formation.

*But some fibers synapse in the brainstem in reticular formation in close proximity to the nucleus of the tractus solitarius of the medulla oblongata which is the primary site of interaction with in the CNS of afferents which influence in autonomic control of **cardio – respiratory system**. This is called as **sushumma***

All the positive matter flows along the vertebral column are gathered up here in and it stimulates the spinal cord called with all its ramification.

$$\text{சுழுமுனை} + \text{சமானன்} = \text{ஐயம்}$$

The other two nadis are called Idakala and pingala of which idakalai coiling round sushumna enters the right nostril, and the other pingala in like manner enters the left nostril.

Thus pingala – is the channel for the current which work in the right half of the body through the right sympathetic trunk.

$$\text{பிங்கலை} + \text{பிராணன்} = \text{அழல்}$$

Idakala is the channel for the current working in the left half of the body (or) the left sympathetic trunk.

$$\text{இடகலை} + \text{அபாணன்} = \text{வளி}$$

Thus, these two right and left sympathetic trunk lying close to the vertebral column on either side consist of several ganglia.

The three nadies Idakala, pingala and sushumna meet in six different places known as shadadharam the six nerve plexues.

*Each of these plexues is round like a wheel and hence they are called **chakkaras**.*

SIDDHA PATHOLOGY

Pathology is a scientific study of structure and function of the body in disease. The discipline of pathology forms a vital bridge between initial learning phase of pre clinical sciences and the final phase of clinical subjects.

"மூலமெழு பத்தீர யிரமாம் நாடி

முளைத்தெழுந்து வலைபோல் முடிந்ததோடே

கோலமாய்ப் பதின்மூவாயிரம் நரம்பு

கோர்வையாய் சூழ்ந்திருக்கும் கூட்டிற்குள்ளே

கலமாம் நாடிபத்து வாயு பத்து

கதித்தெல்லாம் முக்கோர்வைப் பகையினாலே

நாலநா யிரத்து நானூற்றோடு

நவில் நாற்பத் தெண்ணோயாய் நாட்டலமே"

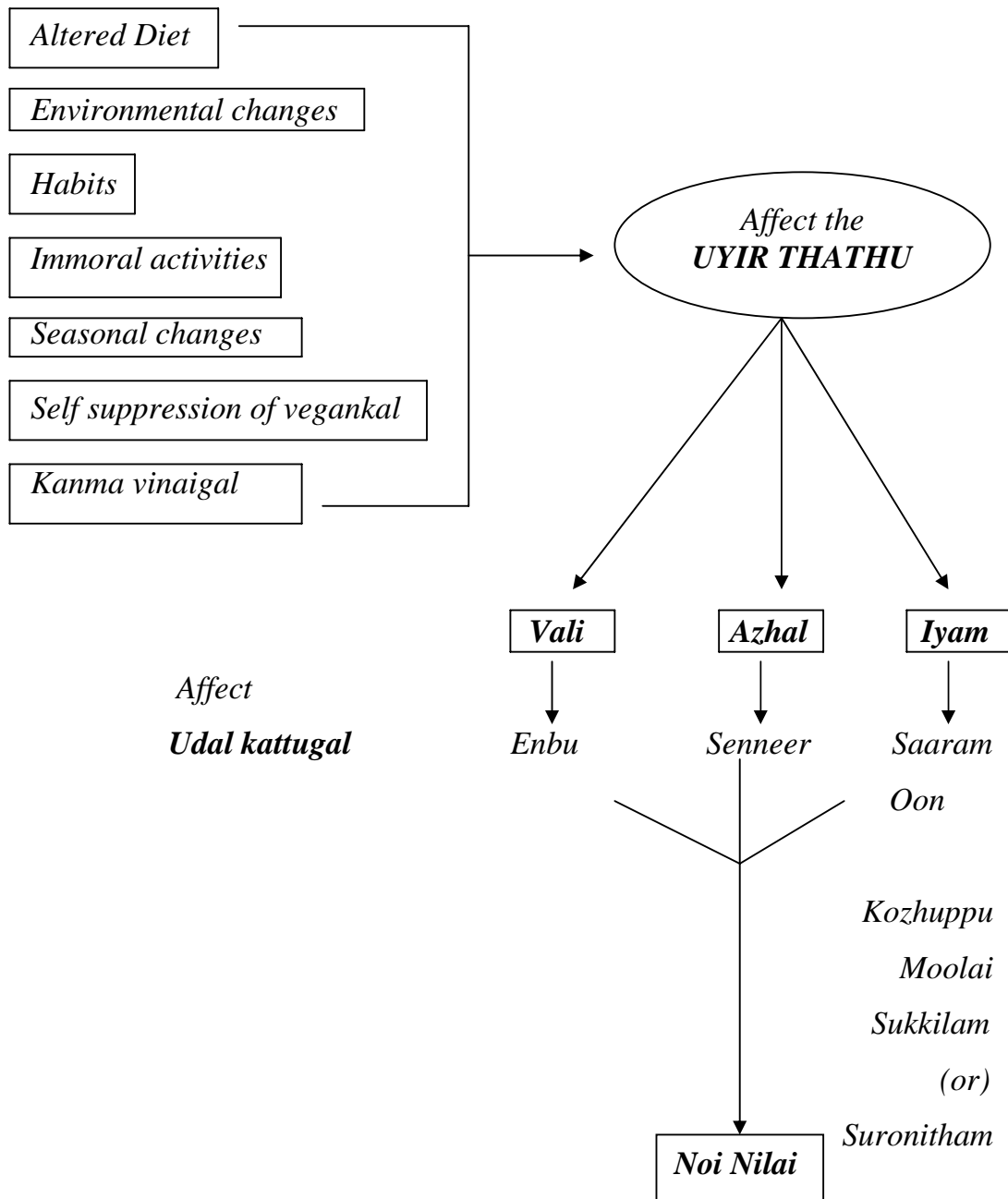
- ஈஸ்வர மெய்ஞான நாடி (30)

The siddhar's school fully recognize, these 96 thathuvangal and further add that the human body is composed of 72,000 blood vessels, 13,000 nerves, 10 main arteries, 10 vital airs (prana) all together in the form of a network and it is owing to the derangement of the three humours becomes liable to 4,448 diseases.

Siddha pathology explained that, all disease are caused by the mixture of the three cardinal humours (or) Uyir Thathu. Vali, Azhal, Iyam and that the relative proportion of these humours are responsible for a person's, physical and mental qualities and dispositions.

➤ *Siddha pathology deals with mukkutram and piniari muraimai.*

➤ *The changes takes place in uyir thathu caused by,*



These factors cause disease in man and the symptoms are depicted according to the humour affected.

Diet:

Food the constituent of energy is responsible for our activities.

According to Siddha system, the daily food comes under 6 main tastes. The tastes altering the humours are due to the ignorance of the dietary adaptations.

*"புளி துவர் விஞ்சுங் கறியாஸ் பூரிக்கும் வாதம்
ஒளி யுவர் கைப்பேரில் பித்தஞ் சீறும் - கிளிமொழியே
கார்ப்பிணிப்பு விஞ்சில் கபம் விஞ்சும்
சட்டிரதச் சேரப் புணர் நோயனுகாதே".*

- **Inippu** is responsible for obesity, indigestion, diabetes, cervical adenitis. Increased kabham and it's diseases.
- **Pulippu** is responsible for body weakness, dull vision, giddiness, anaemia, dropsy, feverishness, dryness of the tongue, herpes, scabies, and blisters.
- **Uppu** is responsible for aging, falling of hair progressive weakness of the body.
- **Kaippu** is related to Vali, disorders of physical constituents.
- **Kaarppu** related to excessive dryness of the tongue, defect in spermatogenesis, general malaise, lassitude's, tremors, back pain.

- *Thuvarppu* related to abdominal discomfort, heart disease, tiredness, vascular constriction and constipation.

Environment:

Dwelling places also play a vital role in determining diseases.

- *Kurinji* - *Fever, anaemia, liver enlargement, iya diseases etc.*
- *Mullai* - *Vali & azhal diseases are predominant.*
- *Marudham* - *Favorable places for dwelling.*
- *Neidhal* - *Vali diseases, elephantiasis, Hepatomegaly.*
- *Palai* - *Abode of all ailments.*

It is inferred that the environment along with its humidity, fertility, nature of soil, its capacity, population, plays a vital role in man's internal environment, immunity, the defense and also for the organisms causing diseases in endemic and epidemic situations.

Habits:

These are deeds involving ones mental and physical activity. Good deeds and their consequences keep the individual fresh and healthy whereas the notorious deeds lead them to continued stress, reduced immunity and make them embodiment of diseases.

Immoral activities

In this modern world, there is a wide opportunity for the human to derail from the disciplined path. It is caused dreadful diseases to enter in to the man.

Season

Seasonal variations are depicted in 6 major & 6 minor forms. The relation between them and the humours are.

Table – 3

<i>Season</i>	<i>Period</i>	<i>Mukkutra Nilaigal</i>
<i>Kaar</i>	<i>Aavani + Puratasi</i>	<i>Vali↑↑, Azhal ↑</i>
<i>Kudhir</i>	<i>Aippasi + Kaarthigai</i>	<i>Vali -, Iyam↑↑</i>
<i>Munpani</i>	<i>Maarghazhi + Thai</i>	<i>Vali -, Azhal-, Iyam-</i>
<i>Pinpani</i>	<i>Maasi + Panguni</i>	<i>Iyam↑</i>
<i>Ilavenil</i>	<i>Chittirai + Vaigasi</i>	<i>Iyam↑</i>
<i>Muduve nil</i>	<i>Aaani + Aadi</i>	<i>Vali↑, Iyam↑</i>

↑ - *Thannilai Valarchi*

↑↑ - *Vetrunilai Valarchi*

_ - *Thannilai Adaithal*

Normally food adaptations save people from these changes. If their fail to adapt these humoural changes cause diseases.

Inhibition of vegangal:

These are the urges must be needed. If they are inhibited from their normal physiological pathway they cause.

- | | | |
|-----------------------------------|---|---|
| <i>Vadham (Abana Vayu)</i> | - | <i>Chest pain, peptic ulcer, abdominal pain, body ache, constipation, oliguria and indigestion.</i> |
| <i>Thummal</i> | - | <i>Head ache, facial pain, back pain, pain in the sense organs etc.</i> |
| <i>Siruneer</i> | - | <i>Ulcers in the urethral orifice, joints pain, urinary tract infection etc.</i> |
| <i>Malam</i> | - | <i>Calf muscle pain, head ache, general debility, flatulence and other disease.</i> |
| <i>Kottaavi</i> | - | <i>Indigestion, contractures in the face.</i> |
| <i>Pasi, Neervetkai</i> | - | <i>Constitution of the body is totally disturbed, emaciation.</i> |
| <i>Kasam</i> | - | <i>Chest disorders supervene.</i> |
| <i>Ilaippu</i> | - | <i>Ulcer and other mega diseases.</i> |
| <i>Nithirai</i> | - | <i>Heaviness of the head, eye pain, deafness, speech disturbances.</i> |
| <i>Vaanthi</i> | - | <i>Urticaria, skin diseases, toxic manifestations, anaemia, eye diseases.</i> |

Kanneer	-	<i>Eye diseases, head ache, sinusitis and heart diseases.</i>
Sukkilam	-	<i>joints pain, fever, chest pain, difficulty in micturition.</i>
Swaasam	-	<i>Cough, abdominal discomfort, anorexia.</i>

Diagnostic methods

Diagnosis is the mandatory process in the treatment of a patient. Envagai Thervugal which is the unique and special method having a broad and important role in diagnosing a particular disease. It is based upon the principles of.

⇒ Poriyaal arithal

⇒ Pulanaal arithal

⇒ Vinaathal

Poriyaal arithal

It means understanding by the five organs of perception, nose, tongue, eyes, skin and the ears.

Pulanaal arithal

It means understanding by the sense objects smell, taste, vision, somatic sense and sound.

Vinaathal

It means interrogating the patient, learning the history, and symptoms of the disease by asking questions to the patients.

Envagai Thervugal

"மெய்க்குறி நிறந் தெனனி விழி, நாவிருமலம் கைக்குறி"

- தேரையர்.

- *Mei – (Sparisam)*
- *Niram*
- *Thoni*
- *Vizhi*
- *Naa*
- *Malam*
- *Moothiram*
- *Kaikuri (Naadi)*

1. Meikuri (Sensation)

Reveals that the structural and sensational changes present through the body.

Eg. *Skin temperature (heat or cold)*

Sweat

Dryness

Tenderness

Swellings

Nourishment, etc.,

2. Niram (Colour)

Reveals that any change in the colour of the skin, nails, hairs, conjunctiva, teeth, mucous membrane, etc.,

3. Thoni (Sound and Speech variation)

Reveals that means the quality of sound, the mode of speech and intelligence is to be assessed.

4. Vizhi (Eye)

It reveals that the systemic changes in the organs, by changes in Its colour, structure of the eye and any discharge in the eye. It also reveals the function of the eye.

5. Naa (Tongue)

It reveals that structural changes, colour changes in the tongue, any ulceration, deviation etc.,

6. Malam (Faeces)

The colour, amount and consistency of the faeces will reflects the pathological condition of the body.

7. Kaikuri (Signs in hand pulse)

Is nothing but the vital energy that sustains the life in our body. It has been considered for assessing the prognosis and diagnosis of the disease. Any variation that occurs in the three humours is reflected in the naadi. It serves as a good indicator of all ill health. It can be perceived by feeling it at the appropriate sites.

8. Moothiram (Urine)

The diagnostic value of urine is observed by Neerkuri and Neikuri.

நீர்க்குறிச் சிறப்பு:

"தர்க்க சாத்திரிகளானோர்
தங்களில் தேர்ந்து நாடி
வர்க்கமாம் நாடி தன்னில்
வருவது மயக்கமென்றே
உற்றநீர்ப் பரிட்சை ஆய்ந்தே
உரைத்தனர் இதற்கு நேராய்
மற்றொரு விதிநூல் இல்லை
மருத்துவக் கலை வல்லோர்க்கே"

Physical findings of urine are said as:

"வந்த நீர்க்கரி எடை மணம் நுரை எஞ்சலென்
றைந்தியலுளவை யறைகுது முறையே"

Colour, quantity, odour, frothy appearance, constituents, specific gravity of urine are physical findings.

நீர் நெய்க்குறி (அறுசீர் விருத்தம்)

"பிணியுள்ளோர் நீரையேற்றுப் பொழுதுமுன் வைத்த பின்னர்
துணிவறு துரும்பி லெண்ணைய் தேய்த்தொடு துளியே விட்டால்"
அணுகி நீர்ப் பாய்பில் காணின் அநிலநேய் வட்டமாயின்
தணிவிலாப் பித்த நோயாந் தங்குமுத் தைய நேயே".

A drop of gingili oil is dropped into the center surface of upper surface of the urine, if the oil spreads like snake indicates Vali, spreads

like a ring indicates Azhal, remains floating as a pearl indicates Iyam mixed reaction of any two indicates thontham.

Basically siddha aims to maintain the equilibrium between the five elements despite our constant interaction with the outer world. The five elements, which work as 3 vital forces in the body and perform all physical and mental functions are constantly affected by time, space and nutrition. The humanity suffers more and more from Vali ailments sleep disorders, aches, and pain, constipation, hemorrhoids, nervous disorder, hypertension, etc. It is regard a sound knowledge of noi naadal is essential to formulate therapeutic measures for various ailments.

AIM AND OBJECTIVES

Now-a-days Moolam is an common ailment prevalent in the world, affecting the Mankind because of their improper life style and diet.

According to Yugi there are 21 types of Moolam, each and every type of Moolam has different causes for their occurrence.

Through this dissertation more an attempt is made to evaluate the proper cause for Raktha Moolam.

Raktha Moolam is one of those diseases which cause severe bleeding through the anus. It affects the patients both physically and mentally.

The topic is discussed with following sub topics,

- *To study the clinical features of the disease.*
- *To explore udal thathuvam.*
- *To review the altered Mukkutram.*
- *To make a clinical observation about incidence of the disease in relation to age sex, occupation, food and other habits Paruvakkalam and Nilam.*
- *To highlight the Envagai thervu*
- *To make out a proper pathology of Raktha moolam by co-relating with modern aspect medicine and to expose the efficiency of siddhars philosophy.*

ELUCIDATION ABOUT RAKTHA MOOLAM

இரத்த மூலம்

"சேதியாய் தொப்புள் தன்னில் வலித்து நொந்து

சிறுகதிர் போற் பீறிட்டு ரத்தம் விழும்

மேதியாய் மேனி வற்றி வெளுத்துப் போகும்

மிக்ககைகா ல்சந்துமே சோகையாகும்

மாதியாய் மார்பிளக்குந் தலை நோவுண்டாம்

மயக்கந்தான் மிகுதியாய்த் தள்ளிப் போகும்

நாதியாய்க் கண்ணிரண்டு மஞ்சள் போலாம்

நலியும் ரத்த மூலத்தின் பண்பு தானே"

- யூகிமுனி வைத்திய சிந்தாமணி

"சேதியாய் தொப்புள் தன்னில் வலித்து நொந்து

சிறுகதிர் போற் பீறிட்டு ரத்தம் விழும்"

Pain in and around the umbilicus and spurting of blood from rectum and anal canal which looks like splash in the pan.

Pain may be due to any cause in and around the umbilicus such as obstruction (or) inflammation eg (Gall stones, pancreatitis) which may indirectly initiate the cirrhosis of liver.

Bleeding is due to rupture of Varicosities. A reverse flow of blood due to portal obstruction leads to varicosities of the plexuses which bulges and ruptures when the pressure in the portal vein raises, leading to spurting of blood.

**"மேதியாய் மேனி வற்றி வெளுத்துப்போகும்
மிகக் கைகால் அசந்துமே சோகையாகும்".**

Weight loss, Anaemia easy fatigability. All these are due to reduced oxygen carrying capacity of blood results from a deficiency of red cells which occurs due to massive bleeding from rectum.

Oedema – A fall in the total plasma protein level results in lowering of plasma oncotic pressure and increased capillary hydrostatic pressure further it results in increased outward movement of fluid from the capillary wall and decreased in-ward movement of fluid from the interstitial space causing oedema and ascitis.

**"மாதியாய் மார்பிளக்கும் தலைநோவுண்டாகும்
மயக்கந்தான் மிகுதியாய் தள்ளிப் போகும்"**

Throbbing chest pain - The lowered oxygen content of the circulating blood leads to myocardial hypoxia which manifest itself as chest pain.

Headache and Drowsiness -Further in central Nervous system

hypoxia may be evidenced by headache dimness, vision faintness, giddiness and drowsiness.

**"நாதிபாய்க் கண்ணிரண்டு மஞ்சள் பேரலாம்
நலியும் ரத்த மூலத்தின் பண்பு தானே"**

Yellowishness of the eyes.

In addition to the above signs and symptoms, mild jaundice is also present which is manifested as yellowishness of sclerae in the eyes. It is due to cirrhotic of liver.

DETAILED PATHOLOGICAL VIEW OF

DISSERTATION TOPIC

SIDDHA ASPECT

Many siddhars have dealt about Raktha moolam. Among them the author has taken Raktha Moolam for dissertation study from YUGI VAIDYA SINTHAMANI. As the name indicates the main symptom of the diseases is bleeding per rectum.

Eyal

Literally Raktha means blood and Moolam means the ano - rectal region. To say it correctly Raktha Moolam is a disease characterized by bleeding per rectum.

Noi Varum Vazhi(Aetiology)

Yugi munivar elaborately describes the various causes for all Moola Noigal although the text does not mention causes separately for each type collectively within two versus. It deals with psychological, Karmic, intrinsic and extrinsic factors of aetiology for all Moola noigal with this and other siddha text we can say the causes of the diseases as,

- 1. Karmic and psychological causes.*
- 2. Due to wrong diet and act.*
- 3. Maintaing wrong positions in yogasanas.*

Etiology:

"தந்தையாமதிகமரங் குளிரினாலுந்
 தரியாத வழற்சியாற் கிரந்தியாலும்,
 புத்தையாம் பொருந்தாத உஷ்ணத்தாலும்
 புணர்ச்சியாற் கோபத்தாற் சலிப்பினாலும்,
 கத்தையாம் வெகுகாரம் வேண்டலாலும்,
 கடினமாமுப்பாலுங் காரத்தாலும்,
 மொத்தையாம் வெகுதனங்கள் போனதாலும்,
 மூலம் வந்துற்பத்தி முனையுந்தானே".

- யுகி வைத்திய சிந்தாமணி

"மூல மிறைச்சி தானு முதிர்வே தின்கையாலும்
 பாலு டனினிய கண்டில் பரத்துடன் தின்கையாலும்
 சால நெய் புசிக்கையாலுந் தையலார் வேட்டையாலு
 மாலகேர் விழியினாளே ஆகிய வரட்சியாமே
 வேகமாந் திரவியங்கள் மிகுகையால் நூற்கையாலும்
 சாகமாங் கொமட்டிக் காய்தான உன்கையாலும்
 காசிய பன்றி மாங்கிஷம் கடுந்தினி துன்கையாலும்
 நீதியிற்றறியே தோங்கி நிரந்தர மிருகையாலு
 போதிய பகற்கண் தூங்கி யுயர்ந்திடு மூலந்தானே
 காயத்தில் மூலரோகங் கண்டிடும் விதங்கள் கேளாய்
 பாயயொத்த தீபனம் பசியை யடக்கில் வாயு
 மாயத் திலிருந்திக் கொண்டு மலவறை யடைக்கும் போது
 ஓயத்த குண்டலிக்குட் புகும் வாயு தானே

வாயு புகுந்து மலத்தோ டபானத்தை
தேயுவை கூட்டி திரட்டி சுருக்கிடும்
தோயு மலம்வரின் சுருக்கி முன்னே
நின்றேயு முளை போல பானனிருக்கும்”.

- அகத்தியர் 2000

“நீக்காத மூலநோய் கண்மத்தாலே
நிலைகெட்ட அபானத்தில் நெருப்பேறி
வாக்காலே யபானத்தின் வாசல் தன்னில்
வந்து முளை மேகத்தால் சூட்டால் காணும்
தாக்கோ லடைத்தாற் போல் வாயு நின்று
தன்மையுள்ள மலமதனை வரட்டித் தீய்த்து
பேய்க் கோலம் பண்ணுமடா மூல ரோகம்
புலத்தியனே பழ வினகைளின்னங் கேளே”

- அகத்தியர் கண்மகாண்டம்

SIDDHA VIEW - நோய் நாடல்

நமது உடல் தொண்ணுற்றாறு தத்துவங்களை அடிப்படையாகக் கொண்டு செயல்படுகிறது. இந்த 96 தத்துவங்களில் ஏதேனும் மாறுபாடு காணும் போது உயிர்தாதுக்களாகிய வளி, அழல், ஐயம் பாதிக்கப்பட்டு, உடற்தாதுக்களின் வழியாக நோயை வெளிப்படுத்துகிறது. இரத்த மூல நோயில் மேற்கூறிய முக்குற்றங்களில் வளி மற்றும் அழல் பாதிக்கப்படுகிறது. இதனை பின்வரும் தேரையர் கூற்றால் அறியலாம்.

"அனில பித்த தொந்தமலாது மூலம் வராது"

- தேரையர்

இதில் அனிலம் வளியையும், பித்தம் தீக்குற்றத்தையும் குறிக்கும். யூகி முனிவர் தாம் இயற்றிய யூகி வைத்திய சிந்தாமணி என்னும் நூலில் மூலநோய் 21 வகைப்படும் என்று கூறியுள்ளார்.

அவையாவன:

"சனிப்பான மூலத்தின் பெயரே தென்னில்

சமசரசமாம் நீர்மூலஞ் செண்டு மூலம்

முனிப்பான முளை மூலம் சிற்றுமூலம்

மூர்க்கமாம் வறண்மூலம் ரத்தமூலம்

தினிப்பான சீமூலம் ஆழி மூலம்

திணியான தமரகமா மூலத்தோடு

வனிப்பான வாத மொடு பித்த மூலம்

வகையான சிலேட்டுமத்தின் மூலமாமே"

"வகையாகுந் தொந்தமா மூலத்தோடு

வளர்கின்ற வினைமூல மேக மூலம்,

பகையா கும்பவத்திரமா மூலத்தோடு

படர்கிரந்தி மூலமொடு குதமாமூலம்

புகையாகும் புற மூலஞ்சுருக்கு மூலம்

பொருகின்ற சவ்வாகு மூலத்தோடு,

தகையாக மூலமது இருபத் தொன்று

தண்மையாய்ச் சுற்றியதின் சுருபந்தானே."

- யூகி வைத்திய சிந்தாமணி

அவையாவன,

1. நீர்மூலம்
2. செண்டு மூலம்
3. முளை மூலம்
4. சிற்று மூலம்
5. வறள் மூலம்
6. ரத்த மூலம்
7. சீமூலம்
8. ஆழி மூலம்
9. தமரக மூலம்
10. வாதமூலம்
11. பித்தமூலம்
12. கபமூலம்
13. தொந்த மூலம்
14. வினை மூலம்

15. மேக மூலம்

16. பவுத்திர மூலம்

17. கிரந்தி மூலம்

18. குத மூலம்

19. புற மூலம்

20. சுருக்கு மூலம்

21. சவ்வு மூலம்

மேலும் ஒவ்வொரு மூல நோய்க்கான அடிப்படை காரணம் மற்றும் குறிகுணங்களைப் பற்றிய குறிப்புகளை அவற்றிற்கான தனித்தனி பாடலின் மூலம் விளக்கியுள்ளார். அனைத்து வகையான மூலநோய்க்கும் குற்றவேறுபாடு பொதுவாக அமைந்துள்ளதால், இங்கு இரத்தமூலநோயில் முக்குற்றங்களில் ஏற்படும் தன்னிலை மாறுபாட்டை பற்றிக் காண்போம்.

"சேதியாய் தொப்புள்தன்னில் வலித்து நொந்து

சிறுகதிர் போற் பீறிட்டு ரத்தம் வீழும்

மேதியாய் மேனிவற்றி வெளுத்துப் போகும்

மிக்ககைகா லசந்துமே சோகை யாகும்

மாதியாய் மார்பிளக்குந் தலைநோ வுண்டாம்

மயக்கந்தான் மிகுதியாய் தள்ளிப் போடும்

நாதியாய்க் கண்ணிரண்டு மஞ்சள் பேரலாம்

நலியும்ரத்த மூலத்தின் பண்பு தானே."

- யூகி வைத்திய சிந்தாமணி

➤ கொப்பூழ் வலி

➤ ஆசன வாயில் இரத்தம் பீறிட்டு வெளிவரல்

➤ உடல் மெலிதல்

- உடல் வெளுத்துக் காணல்
- கை, கால் அசதி
- கை, கால் மற்றும் உடல் வீக்கம்
- மார்பில் பிளத்தல் போன்ற வலி
- தலை வலி
- மயக்கம்
- கண் மஞ்சளித்துக் காணல்

மேற்கூறிய பாடலில் ஆசரியர் முதல் இரண்டு அடிகளில் இரத்த மூல நோயின் குறிகுணங்களையும், அடுத்த நான்கு அடிகளில் இந்நோய்க்குத் துணையாக வரும் மற்ற நோய்களைப் பற்றியும் இறுதி இரண்டு அடிகளில் இரத்த மூல நோய்க்கான நோய்நாடலையும் கூறியுள்ளார்.

(Pathogenesis of the disease)

உயிர்த்தாதுக்களாகிய வளி, அழல், ஐயம் இவை மூன்றும் இரத்த மூல நோயில் ஒன்றன் பின் ஒன்றாக கேடடைகிறது.

- அதிக உணவு உண்ணல்
- உடலுக்கு ஒவ்வாத பொருட்களை உண்ணல்
- கள், சாராயம் முதலியவற்றை அளவு கடந்து உண்ணல்
- வயிறு நிறைய உண்டபின் குதித்தல், ஆடல், பாடல், நீரில் நீந்துதல்
- ஆகாரத்திற்கு மேல் நெய், எண்ணெய், பால் போன்ற நெய்ப்பொருட்களை அருந்துதல்
- உண்டவுடன் உறங்குதல்
- கழிச்சல் மருந்துகளை அடிக்கடி உட்கொள்ளுதல்
- கல்லீரலில் ஏற்படும் தொற்றுநோய்கள்

மேற்கூறிய காரணங்களால் அழல்குற்றமானது வன்மையடைகிறது. இதனால் உடலில் அழல் வாழும் இடங்களான கொப்பூழ், உந்தி, இரைப்பை ஆகிய இடங்களில் அழல் வன்மையடைகிறது.

இயற்கையாக நாம் உண்ட உணவை செரிப்பிக்கச் செய்வது அனற் பித்தம். இது தீயின் பண்புடையது. மேலும் செரிக்கப்பட்ட உணவை அப்புவின் கூறாக நின்று, உடலின் நடுவான பக்குவாசயமே இடமாகப் பெற்று வயிறு முற்றிலும் வாழ்ந்து, செரிப்பித்தற்குரிய தீயை விருத்தி செய்து, சாரம் வேறு திப்பி வேறாக பிரித்து, சாரத்தை உடலின் எல்லா பாகங்களுக்கும் பகிர்ந்து கொடுத்து உடலை வளர்ப்பது சமான வாயு ஆகும்.

இவ்வாறு பிரிக்கப்பட்ட சாரத்தை நாடி, நரம்பு, இரத்தக் குழாய்களின் மூலம் கொண்டு சென்று உடலின் மற்ற பாகங்களுக்குச் சேர்த்து உடலைக் காப்பது வியானன் (பரவுகால்) ஆகும்.

மேற்கண்ட காரணங்களால் மிகுதியான அழலானது தனக்குத் துணையாக தசவாயுக்களில் சமானன் மற்றும் வியானனையும் கேடடையச் செய்வதால் உணவின் சாரம் சரியாக பிரிக்கப்படாமலும், சேர வேண்டிய இடத்தில் சேர்க்கப்படாமலும் ஆங்காங்கு தேங்கி நிற்கும். எனவே, ஏற்கனவே கேடுற்ற அழல் குற்றத்தோடு வளியும் சேர்ந்து கேடடைவதால் வளிஅழல் தொந்தமாக கேடடைகிறது.

மிகுதிப்பட்ட வளி அழல் குற்றத்தை சமம்படுத்துவதற்காக பத்து வகையான வாயுவுக்களில் பாதிக்கப்பட்ட உறுப்புகளுக்கு ஏற்றவாறு சில (அ) பல வாயுக்கள் தூண்டப்படுகிறது.

இரத்த மூல நோயில் நமது உடலில் கேடடைந்த வளிஅழல் குற்றத்தை சரிசெய்ய கீழ்நோக்குகால் தூண்டப்படுவதால் வளிஅழல் தொந்தமானது நாடி, நரம்புகளின் வழியாக கீழ்நோக்கித் தள்ளப்படுகிறது.

(Back pressure in the portal vein)

இதனால் கீழ்நோக்கி தள்ளப்பட்ட வளிஅழலானது மூலாதாரத்தில் சேர்ந்திருக்கும் நாடி நரம்புகளின் வழியாக மூலாக்கினியை எழுப்பி, நாடி, நாளங்களில் ஆங்காங்கு வெடிப்பை ஏற்படுத்தி, குருதியை வெளியேற்றுகிறது.

அதிகப்படியான குருதி உடலிலிருந்து வெளியேற்றப்படுவதால்

- உடல் வன்மை குறைகிறது
- பசித்தீ கேடடைகிறது
- உண்ட உணவு சரிவர செரிக்கப்படாமல் இருத்தல்
- உணவின் கேட்டால், இரச, இரத்த நாளங்கள் ஊட்டம் பெறாமை

ஆகிய காரணங்களினால் உடலில் அழல்குற்றம் மேலும் மிகுதிப்படும்.

"கபமான நீர்துவமின்றி சோபைவராது"

- தேரையர்

அழல்குற்றம் கேடடைந்து இருக்கும் போது அத்துடன் கபம் சேர்ந்து குருதியை நீர்த்துவம் அடைய செய்து உடலில் ஐயமிருதியை விளைவிக்கின்றது. அதாவது குருதியின் நீர்ப்பாகத்தை அதிகமாக்கி உடல் முழுமையும் நீர்மயமாக, நீர்கோர்த்து ஊதச் செய்கிறது.

இரத்தமூல நோய் உருவாகும் முறை

"சேதியாய் தொப்புள்தன்னில் வலித்து நொந்து

சிறுகதிர்போற் பீறிட்டு இரத்தம் வீழும்"

கேடடைந்த வளிஅழல் குற்றத்தினால் மூலாதாரத்தில் சேர்ந்திருக்கும் நாடி நரம்புகளின் வழியாக மூலாக்கினியை எழுப்பி ஆங்காங்கு நரம்புகளில் வெடிப்பை ஏற்படுத்தி குருதியை வெளிப்படுத்தும். அழல் வாழ்மிடமான கொப்பூழில், கேடடைந்த வளிஅழல் குற்றம் தங்குவதால் வளிகுற்றம் மேலும் அதிகரித்து அதன் செய்தொழிலான உடல்நோதல், குத்தல், பிளத்தல் போல் காணல் ஆகியவற்றை போல் கொப்பூழில் வலி உண்டாகிறது.

இதையே

"வாயுவின் குணத்துடன் சூடனுகில்

வாயுவுனிடங்களில் நோய்களுண்டு"

மருத்துவ தனிப்பாடல் கூறுகிறது

"மேதியாய் மேனிவற்றி வெளுத்துப் போகும்

மிக்க கைகாலசந்துமே சோகையாகும்

மாதியாய் மார்பிளக்குந் தலை நோ வுண்டாம்

மயக்கந்தான் மிகுதியாய் தள்ளிப்போடும்"

மேற்கூறிய குற்ற வேறுபாட்டின் காரணத்தினாலும், மிகுதியான குருதி வெளியேறுவதாலும், உடலுக்கு வேண்டிய ஊட்டத்தை கொடாமல்.

வெளுப்புநோயின் குறிகுணங்களான

- உடல் எடை குறைதல்
- கை,கால் அசதி,
- மார்பு வலி
- தலை நோவு
- மயக்கம்
- சோகை

ஆகிய குறிகுணங்கள் ஏற்படுகிறது.

"நாதியாய் கண்ணிரண்டு மஞ்சள் போலாம்

நலியும் ரத்த மூலத்தின் பண்புதானே"

"சுறுமடா பித்தமந்த வாதத்தி லேறில்

தளஞ்செய்யும் பாண்டு காமாலை தானும்"

- நாடிநூல்

என்பதற்கிணங்க, பித்தஐயக்கலப்பு, பித்தவாதக் கலப்பாலும் மஞ்சள் நோய் காணும். கேடடைந்த அழல், ஐயக்குற்றத்தின் அளவாக வாயுக்களும், குருதியும் கெட்டு வலப்பாட்டு ஈரலைத்தாக்கி பித்தநீரை இயற்கை வழியில் செல்லவொட்டாமல் தடுத்து குருதியுடன் கலக்கக் செய்வதால், குருதி

செல்லும் இடங்களெல்லாம் மஞ்சளித்துக் காணும், இந்த மாறுபாடுகளை உடல்கழிவுகளான மலம், சிறுநீர், காதுமலம், மூக்குமலம் இவைகளிலும், கண்ணின் வெள்விழி பகுதியிலும் வெளிப்படுத்தும்.

எனவே இரத்த மூல நோயானது மஞ்சள் நோயை தொடர்ந்து வருவதே என்பதை "நாதியாய் கண்களிரண்டும் மஞ்சள் போலாம்." என்ற அடிகளின் மூலம் யூகி முனிவர் தன் பாடலில் குறிப்பால் உணர்த்துகிறார்.

மேலும் இதில் பாதிக்கப்பட்டிருக்கும் முக்குற்றங்கள் மற்றும் உடல் தாதுக்களாவன.

வளியானது நமது உடலில் தசவாயுக்களாக இயங்குகிறது. இந்த தசவாயுக்களில் இந்நோயில் கீழ்க்காணும் வாயுக்கள் முதன்மையாக பாதிக்கப்படுகிறது.

1. பிராணன்
2. அபானன்
3. வியானன்
4. சமானன்

➤ பிராணன் பாதிப்பை தொடர்ந்து கை, கால், அசதி, தலைவலி, மார்புவலி.

➤ அபானன் பாதிப்பை தொடர்ந்து - கொப்பூழ்வலி, கீழ்நோக்கி இரத்தம் பீறிட்டு வெளிவரல்.

இந் நோயில் முதன்மையாக பாதிக்கப்படும் அழல் குற்றங்களாவன.

1. அனற் பித்தம்
2. இரஞ்சக பித்தம்
3. சாதக பித்தம்
4. ஆலோசக பித்தம்

5. பிராசகபித்தம்

- இரஞ்சக பித்த பாதிப்பை தொடர்ந்து வெளுப்பு நோய் தோன்றல்.
- பிராசக பித்த பாதிப்பை தொடர்ந்து தோல் வெளிரல்
- ஆலோசக பித்த பாதிப்பை தொடர்ந்து கண்கள் மஞ்சளாதல்
- சாதக பித்த பாதிப்பை தொடர்ந்து மயக்கம் மற்றும் உடல் வற்றிப் போதல்.
- அனற் பித்த பாதிப்பை தொடர்ந்து இரத்த மூல நோயில் அனற்பித்தமானது முதலாக பாதிக்கப்படாமல், வெளுப்பு நோய் ஏற்படுவதை தொடர்ந்து குருதியின் வன்மை கெட்டு பசித்தீ குறைகிறது.

இரத்த மூல நோய்க்கான அடிப்படைக் காரணம் அனில பித்த தொந்தமாக இருப்பினும், நோய் நாளுக்கு நாள் வன்மையடையும் போது ஐயமானது மேலிட்டு சோபை நோயை உருவாக்கி கீழ்க்கண்ட ஐயத்தையும் பாதிக்கிறது.

அவையாவன,

- அவலம்பகம் - பாதிப்பை தொடர்ந்து பெருமூச்சு வாங்கல்.
- கிலேதம் - பாதிப்பை தொடர்ந்து பசித்தீ கேடடைதல்.
- போதகம் - பாதிப்பை தொடர்ந்து வாய்குமட்டல், உணவில் விருப்பமின்மை.

உடற்தாதுக்கள்:

இந்நோயில் பாதிக்கப்படும் உடற்தாதுக்களாவன

- சாரம் - பாதிப்பை தொடர்ந்து உடல் மற்றும் மனம்
ஊக்கமின்மை
- செந்நீர் - பாதிப்பை தொடர்ந்து மேனி வெளுத்தல்
- ஊண் - பாதிப்பை தொடர்ந்து மேனி வற்றுதல்
- கொழுப்பு - பாதிப்பை தொடர்ந்து இடப்பாட்டு ஈரல் வளர்ச்சி
மற்றும் உடல் இளைத்தல்

MODERN PATHOLOGICAL VIEW

"சேதியாய் தொப்புள்தன்னில் வலித்து நொந்து

சிறுகதிர் போற் பீறிட்டு ரத்தம் வீழும்

மேதியாய் மேனிவற்றி வெளுத்துப் போகும்

மிகக் கைகர லசந்துமே சோகையாகும்

மாதியாய் மார்பிளக்குந் தலை நோவுண்டாம்

மயக்கந்தான் மிகுதியாய்த் தள்ளிப் போகும்

நாதியாய் கண்ணிரண்டு மஞ்சள் போலாம்

நலியும் ரத்த மூலத்தின் பண்புதானே"

- யூகி வைத்திய சிந்தாமணி

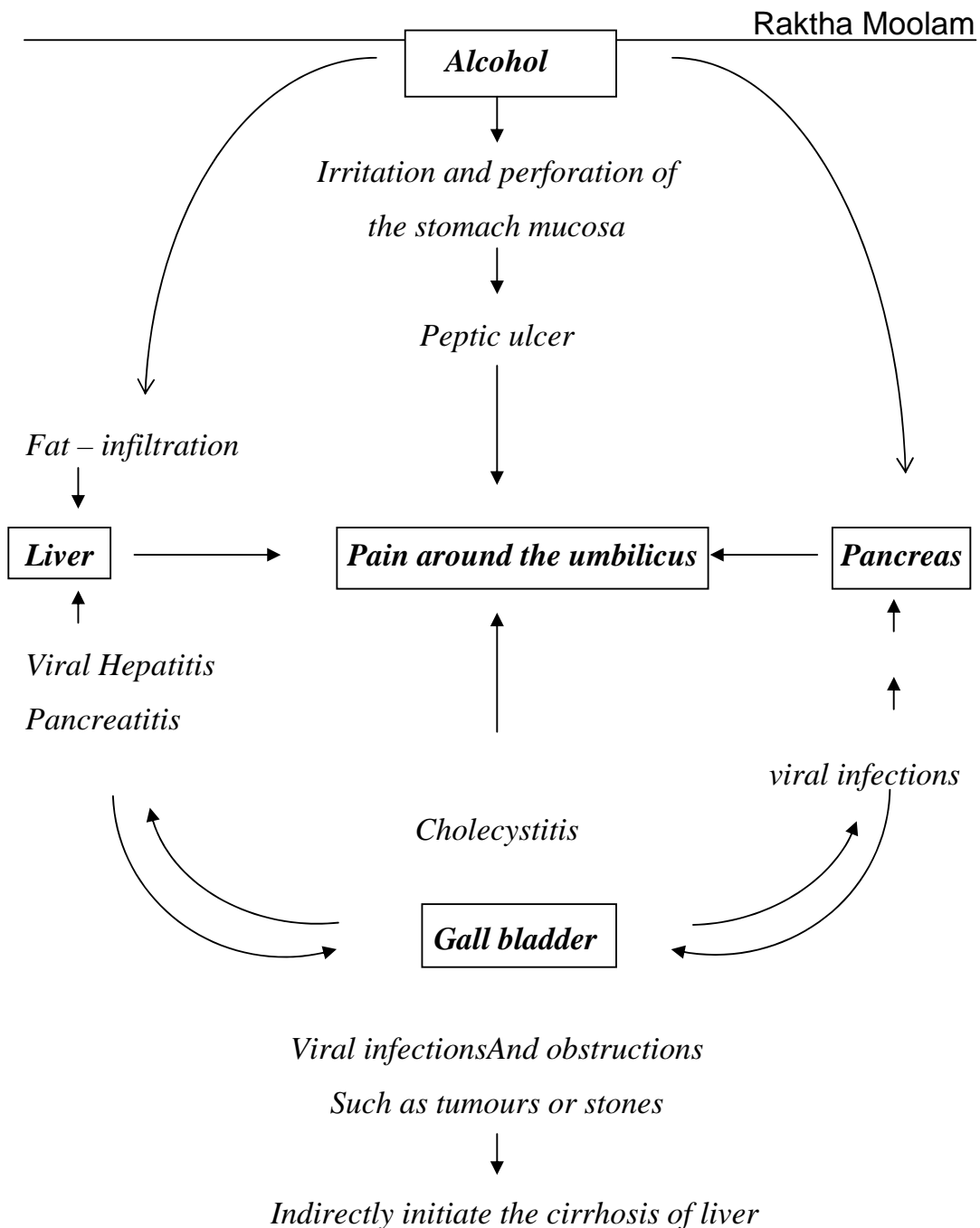
The Stanza reveals the pathogenesis of the disease explained by four stages

1. The umbilical pain and increased portal pressure
2. Rupture of the portal vessels and recurrent bleeding from the anus
3. Complications due to heavy blood loss
4. Manifestations of the cirrhotic liver.

The umbilical pain and increased portal pressure

"சேதியாய் தொப்புள்தன்னில் வலித்து நொந்து"

The pain produced here is usually the radiating pain of the surrounding area of the umbilicus and not especially produced in the umbilicus itself



The cirrhotic liver produces the increased portal pressure in the portal vein due to constrictions of replaced fibrous tissue around the blood vessels and greatly impeding the flow of portal blood vessels causing portal hypertension.

Rupture of the portal vessels

"சிறுகதிர் போற் பீறிட்டு ரத்தம் வீழும்"

When the Raised portal pressure prefers the lower tract, the backward pressure in the portal vein causes the rectal veins in the anus to undergo varices.

Along with this when the patients have the congenital weakness of the venous wall with weak submucous connective of the rectum it easily predisposes to the formation of rectal varices.

Recurrent bleeding from the rectal varices

Thus when ever there is increased in pressure (especially the portal pressure is raised after ingestion of food), these fragile blood vessels are in danger of breaking and bleeding and the pressure in the vein produces the bleeding as if "spurting from the anus".

Complications due to heavy blood loss

"மேதியாய் மேனிவற்றி வெளுத்துப் போகும்"

There is heavy blood loss due

- 1. Recurrent bleeding*
- 2. Insufficiency of coagulation factors due to cirrhotic liver and*
- 3. Spleenomegaly*

All these contribute to mass reduction in the Red blood cells and reduced oxygen transport to tissues which produces certain changes throughout the body and manifest as anaemia, they are

- *Paleness of the skin and usually the skin becomes thin and inelastic as the epidermis and dermis undergo atrophy.*

"மிகக் கைகா லசந்துமே சோகையாகும்"

The other manifestations of anaemia are

- *Weakness*
- *Malaise*
- *Easy fatigability*
- *Oedema*

Oedema

It is the result of an increase in the forces that tend to move fluids from the intravascular compartment into the interstitial fluid.

When there is heavy blood loss it produces a fall in the total plasma protein level, which results in lowering of plasma oncotic pressure.

This results in increased outward movement of fluid from the capillary wall and decreased inward movement of fluid from the interstitial space causing oedema and ascites.

"மாதிரியாய் மார்பிளக்குந் தலை நோவுண்டாம்"

Cells that are particularly vulnerable to hypoxia may undergo fatty changes (or) even ischemic necrosis such damage is most frequently encountered in

- *Muscle cells of the myocardium*
- *The sensitive ganglion cells of the cortex and basal ganglion*

All these manifest as

- *The respiratory difficulty as the throbbing chest pain*

"மயக்கந்தான் மிகுதியாய் தள்ளிப் போகும்"

In the central nervous system hypoxia may be evidenced by headache dimness of vision drowsiness and mental confusion.

In addition to this accumulation of ammonia due to inability of the liver to detoxify is characterized by the disturbances in consciousness and behaviour and later coma – Hepatic encephalopathy.

Manifestation of cirrhotic liver

"நாதியாய் கண்களிரண்டும் மஞ்சள் போலாம்"

Yellowishness of the eyes – indicates the presence of jaundice. Bilirubin pigment has high affinity for elastic tissues and hence jaundice is particularly noticable in tissues rich in elastin content such as skin and sclerae.

***Jaundice** is largely due to failure of the liver cells to metabolize bilirubin and the severity of the jaundice varies according to the type of liver cell failure.*

- ***In acute failure** - Jaundice parallels the extent of the liver cell damage*
- ***In cirrhosis** - Jaundice may be mild because this is due to balance achieved between the hepatic necrosis and regeneration. But in later stage its manifestation is very severe.*

REVIEW OF LITERATURES

According to Gunavaagadam the symptoms are:

"தொப்புழும் வலித்து நொந்து துளஇடர யிரத்தம் வீழ்ந்து
அப்பொழுதுள்ள மூலமறியவே வெளியில் தள்ளும்
தப்பிடத மேனிவற்றித் தறுகிடர தூடே சென்று
இப்படி ரத்தமூல மொன்றுதா னியம்பலாமே"

- குணவாகடம்

- Pain in the umbilicus
- Bleeding per rectum
- Protrusion of the pile mass
- Emaciation.

According to Aavi Alikkum Amutha murai churukkam

The Symptoms are

- Loss of appetite.
- Lower abdominal discomfort
- Constipation.
- Pain around umbilicus
- Bleeding per rectum
- Drowsiness
- Anaemia and breath less ness

According to Cegarasa Sekaram

- *Presence of pile mass*
- *Swelling of pile mass*
- *Bleeding per rectum.*

This is given in the verse follows.

*"இருக்கும் சிலமூல மெழ மண்டலம் பேரல
மறுக்கரணங் கொண்டு வளருஞ் சில மூலம்
முறுக்கிய வாயுவால் உதிரந்தான் கூட்டித்
தறுக்கி விழக் காட்டுந் தான் தத்த மூலமே"*

According to Aathma ratchaamirtham Entra Vaidhya Saara Sangiragam.

The symptoms are

Consuming food stuffs with bitter and sour taste.

- *Body becoming warmer*
- *Loss of appetite*
- *Lower abdominal discomfort*
- *Constipation*
- *Pain around the umbilicus*
- *Bleeding per rectum*
- *Protrusion of the pile mass*
- *Irritation and burning sensation in the anus*
- *Anaemia*

According to Thirumoolar Karukkidai Vaidhyam - 600

The symptoms are

- *Pile mass.*
- *Bleeding per rectum.*

According to “Veerama Munivar” aruli cheitha “Nasakanda venba”

- *Pain in the umbilicus*
- *Spurting out of blood during defaecation*
- *Emaciation*
- *Pallor*
- *Weakness in limbs*
- *Sobai*
- *Chest pain*
- *Head ache*
- *Giddiness*

THEORITICAL VIEW OF DISSERTATION TOPIC

ANATOMY

As Raktha moolam has cirrhosis of liver as cause of its occurrence, Here in this dissertation anatomy of both Anal canal and liver are described.

Anatomy of Rectum and the anal canal

Rectum is the distal portion of the large gut placed between the sigmoid colon above and the anal canal below in front of last three pieces of sacrum and coccyx.

It is about 12cm long and 2.5 cm in diameter.

Anal canal is the terminal part of the large intestine. It extends from the ano - rectal junction to the anal opening at perineum.

It is about 4cm long and 1.25 cm in diameter.

Ano - rectal ring

This is a muscular ring present at the ano – rectal junction. It is formed by the fusion of puborectalis, deep external sphincter and internal sphincter.

It is easily felt by the finger in the anal canal.

Sphincters of anal canal

Internal sphincter

- *It is the downward extension of circular muscle of rectum.*
- *It is involuntary in nature*
- *It surrounds the upper three fourth of the anal canal*

External sphincter

- *It is made up of striated muscle*
- *It is under voluntary in control*
- *It surrounds the whole length of the anal canal*

Pectan or white line of Hilton

It is a broad line of 1.25 cm width It is an important surgical land mark, because this line is referred to as the inter – sphincteric groove as it is dividing line between the external and the internal spincter.

It is the dividing line between the superior and inferior rectal vessels.

*It is the important site of **portocaval communication** other importance of this Hiltons lines are,*

Table - 4

	<i>Below the line</i>	<i>Above the line</i>
<i>1. Histology</i>	<i>Lined by stratified squamous epithelium</i>	<i>Lined by columnar epithelium</i>
<i>2. Supply of nerve, skin</i>	<i>Inferior haemorrhoidal nerve and is pain sensitive</i>	<i>Autonomic plexus of nerves and not sensitive to pain</i>
<i>3. Haemorrhoids</i>	<i>External haemorrhoids occur here</i>	<i>Internal haemorrhoids occur here</i>
<i>4. Lymphatics</i>	<i>End in the superficial inguinal nodes</i>	<i>Drained by the pelvic nodes.</i>

Arterial supply

The anal canal is supplied by the inferior rectal branches of the internal pudental arteries

Venous drainage of rectum and anal canal

There are two plexuses of veins draining the rectum and the anal canal

1. Submucosal plexus of veins

Above the Hiltons line – They are drained by superior rectal vein and thus reach port system there are no valves in superior rectal veins.

Below the Hiltons line – they are drained by inferior rectal vein and this into the caval system.

- *There are valves in the inferior rectal veins. Which permit the blood flow away from the rectal veins.*
- *Thus there is connection between the portal and the systemic veins in the submucosal plexus.*
- *A reverse flow of blood due to portal obstruction leads to varicosities of those plexuses which bulge and form piles or haemorrhoids.*

2. Perimuscular plexus of veins

Lies on the surface of the muscle coat, especially in the lower part of the rectum and the anal canal. They are drained by superior rectal veins above and the middle rectal veins at the sides.

ANATOMY OF THE LIVER

Liver is the largest gland in the body situated in the right upper quadrant of the abdominal cavity.

- *Reddish brown in colour*
- *1.5 kg weight*
- *It has 2 anatomical lobes right and the left*
- *Right lobe being 6 times the size of the left*

Internal lobes and segments

Liver consist of many lobes. Each lobe consist of large number of lobules, each lobe is a honey comb like structure.

Each lobule consist of a mass of hepatic cells arranged in irregular radiating column between which the blood channels called sinusoids present.

Each lobule has

- *Hepatic cells*
- *Blood vessels*
- *Bile ducts and*
- *The secreting glands*

Hepatic cells

The liver cells comprise about 60% of the liver. In between the hepatocytes blood spaces are present called sinusoids. The sinusoids are lined by sinusoidal lining cells

Sinusoidal lining cells are

- ***Endothelial cells*** - These are in contact in lumen of the sinusoids. Fenestrae of this cells determine the exchange of fluids and other particulate matter.
- ***Kupffer cells*** - They are the phagocytic cells derived from blood monocytes
- ***Fat storing cells*** - These stellate sessile cells lie within the space of Disse. They may contain they store vitamin A and other retinoids.
- ***Pit cells*** - they are highly mobile natural killer lymphocyte. They show spontaneous action against virus infected hepatocytes.

All these cells are very important because their damages contribute to portal hypertension.

Blood supply

Liver has dual blood supply

- ***The portal vein*** - it brings venous blood from the intestine and spleen
- ***The hepatic artery*** – coming from the celiac artery supplies the liver with arterial blood.

*These vessels enter the liver through a fissure, the **porta hepatis**, which lies in the inferior surface of the right lobe. Inside the porta, the portal vein and Hepatic artery divided into branches to the right and left lobes.*

Portal traid

- *It is an channel through which the smallest radicle of*
- *Portal vein*
- *Hepatic artery and the*
- *Bile duct are distributed*

*All these are bound together by a delicate connective tissue called
Gilson capsule.*

Portal vein

*The portal vein about 8 cm in length formed at the the level of
second lumber vertebrae behind the neck of pancreas by the junction of,*

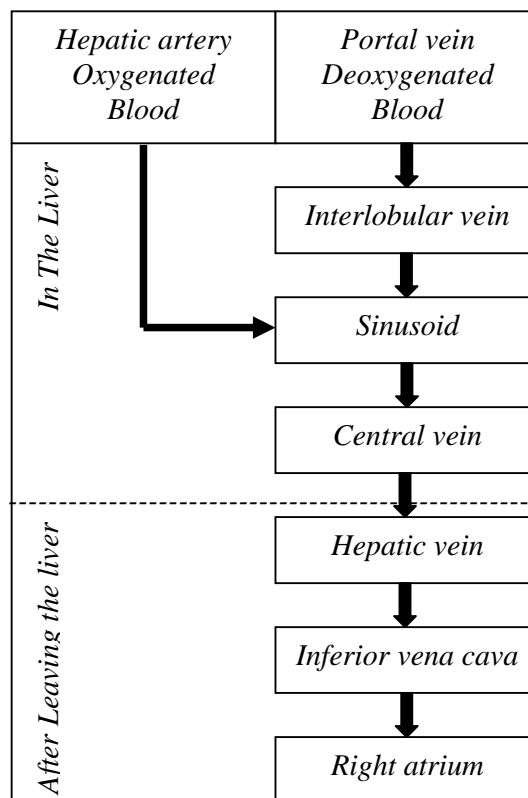
- *Superior mesentric vein and*
- *The splenic vein*

PHYSIOLOGY

Liver is both secretory and excretory organ. Liver is included one among the organs of the alimentary system because it produces a secretion the Bile which plays an important role in fat digestion.

And it is the main organ which receives nutrients and other organic materials from the digested food and re-distributes to other organs. This is mainly done by the portal system.

PORTAL SYSTEM



Any portal system is defined by the fact that the blood drains from one venous system to another without having arteries interposed between the two.

The ingested food substance are digested and absorbed into the venous side of the Gastro intestinal tract. This blood is high in nutrients and is also potentially high in toxins and needs to be filtered of unwanted material beyond being distributed to the rest of the body.

Thus portal vein brings de-oxygenated blood from stomach, intestine, Spleen and pancreas. Which is rich in monosaccharides, amino acids and hormones of Gastro intestinal tract.

The portal vein which enters the liver again becomes smaller and smaller in the substance of the liver until the second venous capillary bed is reached sinusoids of liver.

The blood from hepatic artery and portal vein gets mixed up in the hepatic sinusoids. The hepatic cell gets oxygen and nutrients from the sinusoids. The hepatocytes lining the sinusoids filter detoxify and add extract substance to and from the blood at this stage and once filtered the blood passes into the central vein.

This flow of blood from intestines to liver through portal vein is known as Enterohepatic circulation

The central Vein is the beginning of second venous system. The venous system is filled with progressively larger and large veins known as hepatic veins. The hepatic veins eventually drain the filtered blood into inferior venecava.

MODERN PATHOLOGY

HAEMORRHOIDS

“If Bile (or) phlegm be determined to the veins in the Rectum, it heats the blood in the veins and these veins becoming heated attract blood from the nearest veins, and being gorged the inside of the gut swells outwardly, and the heads of the veins are raised up, the faces passing out, and injured by the blood collected in them, they squirt blood, most frequently along with the faeces, but sometimes without faeces”.

Hippocrates (460-375 BC)

Definition:

Haemorrhoids (or) piles are the dilated veins within the anal canal in the sub-epithelial regions formed by radicals of superior, middle and inferior rectal veins.

Classification:

They are classified into two types

- *Internal haemorrhoids*
- *External haemorrhoids*

<i>S. No.</i>	<i>Internal haemorrhoids</i>	<i>External haemorrhoids</i>
<i>1.</i>	<i>They occur above the Hilton's line</i>	<i>They occur below the Hilton's line</i>
<i>2.</i>	<i>Due to varicosities developed by superior Rectal veins</i>	<i>Due to varicosities developed by inferior rectal veins</i>
<i>3.</i>	<i>Bright red (or) purple in colour, because they are covered with mucous membrane</i>	<i>It is situated outside the anal orifice and is covered by the skin</i>
<i>4.</i>	<i>They are painless as they do not have pain receptors</i>	<i>They are painful</i>
<i>5.</i>	<i>They bleed during straining</i>	<i>They do not bleed</i>

Internal haemorrhoids is again divided into 2 types according to their cause of occurrence

1. Primary haemorrhoids

Located at 3, 7, 11 o'clock positions, related to the branches of the superior haemorrhoidal vessels

2. Secondary haemorrhoids

One which occurs between the primary sites.

Degree of haemorrhoids

<i>First degree</i>	<i>Piles within that may bleed but do not prolapsed</i>
<i>Second degree</i>	<i>Piles that prolapsed during defecation but return back without manual help</i>
<i>Third degree</i>	<i>Piles that are prolapsed during defecation not but need to be replaced by manual help</i>
<i>Fourth degree</i>	<i>Piles that are permanently prolapsed</i>

Etiology

- *Hereditary*
- *Morphological*
 - *Absence of valves in the superior rectal veins*
 - *Radicals of superior rectal veins lie unsupported in loose connective tissue of the rectum*
 - *Contraction of veins which enter above the muscular layer increases the venous congestions below.*
- *Occupational*
 - *Heavy manual labours as porters prolonged as in drivers, Traffic police man.*
- *Obesity*
- *Sedentary life style*

- *Low fiber diet*
- *Excess alcohol intake*
 - *Causes cirrhotic liver which leads to portal hypertension.*
- *Caffeine It can cause General hypertension*

Secondary causes

- *Chronic constipation*
- ***Portal hypertension***
- *Venous stasis of pregnancy*
- *Uterine Tumours*
- *Tumours of the rectum*

*As this dissertation topic **Raktha Moolam** has the portal hypertension as their root cause for their occurrence. A short description about the portal hypertension is also discussed here*

PORTAL HYPERTENSION

Definition

A sustained elevation of the portal venous pressure above 12mm Hg normally (8-12 mmHg).

Incidence

The most common cause of portal hypertension is cirrhosis of liver. The major cause for cirrhosis in Indian culture are,

- *Alcohol*
- *Hepatitis B and C infections*

Causes of Portal Hypertension

Table - 5

<i>Prehepatic</i>	<i>Hepatic(80%)</i>	<i>Post- hepatic</i>
<i>Portal vein or splenic vein thrombosis</i> <i>Hypercoagulable Status</i> <i>Periportal Inflammation Trauma</i> <i>Extrinsic Compression from pancreas, stomach</i> <i>Neonatal Umbilicus Sepsis</i>	<i>Portal pyaemia</i> <i>Alcoholic Cirrhosis</i> <i>Idiopathic Portal Hypertension</i> <i>Primary Biliary Cirrhosis</i> <i>Schistosomiasis</i> <i>Hepatitis B, C</i> <i>Nodular regenerative hyperplasia</i> <i>Wilson's disease</i> <i>Haemochromatosis</i> <i>Congenital Hepatic fibrosis</i>	<i>Budd - chiari syndrome</i> <i>Constrictive pericarditis</i> <i>Congestive cardiac failure</i> <i>Veno - Occlusive Disease</i>

PATHOGENESIS OF PORTAL HYPERTENSION

Portal hypertension is the build up of pressure in the veins connecting the intestines and the liver, normally the pressure is low compared with the Arterial pressure.

Increase in portal pressure is primarily related to progressive hepatic Fibrosis.

The two major pathways leading to portal hypertension are

- *Increased interhepatic vascular resistance (left)*
- *Increased inflow from the dilated hyper dynamic both the factors play an important role which leads to splanchnic circulations (Right)*

When the liver parenchymal cells are destroyed due to inflammation and damage they have considerable powers of regeneration to restore the normal architecture.

However if the loss of liver cells is recurrent the following changes occur in hepatocytes.

- *There is striking reduction in the number of fenestrations in the endothelial cells.*
- *Change of Fat storing cells into myofibroblasts which secrete collagen I, II & IV.*

- *Impaired synthesis of the vasodilator, nitric oxide and increased release of vasoconstrictor, endothelin.*

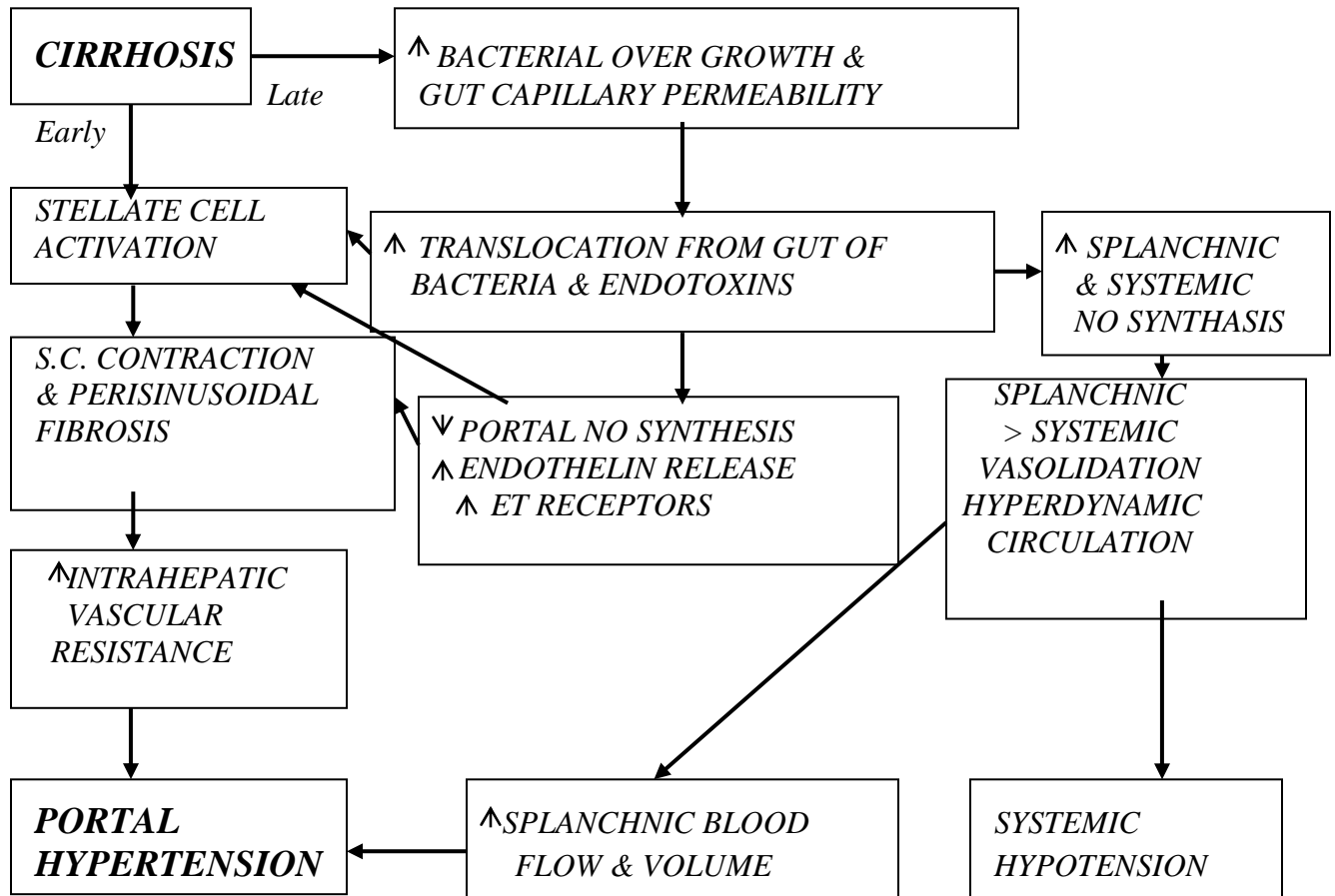
This leads to collagenization is of the space of tissue and the liver micro circulation may be altered.

They contribute to deprivation of nutrients intended for the hepatocytes and impaired hepatic removal of toxins which leads to loss of power of regeneration of liver called Cirrhosis, In turn the replaced fibrous tissue eventually contracts around the blood vessels. The hepatic flow of blood comes from both the hepatic artery 20% and the portal vein 80%.

As the resistance increases there by greatly impeding the flow of portal blood vessels resulting in portal hypertension.

PATHOGENESIS OF PORTAL HYPERTENSION IN

CIRRHOSIS



Collateral circulation

As the portal pressure increases in Normal 100% of the portal venous blood flow can be recovered where as in cirrhosis only 13% is obtained. The remainder tries to find another route to lower the pressure in venecava system. At the expense of pressure gradient it produces collaterals.

Anastomoses between the portal and systemic venous system

Collaterals form in area where capillaries and the venous systems are contiguous and often had been joined during embryonic stage.

Table - 6

<i>Site of anastomosis</i>	<i>Portal vessel</i>	<i>Systemic vessel</i>	<i>Signs and symptoms</i>
<i>1.Plexus around the lower end of oesophagus</i>	<i>Oesophageal branch of left gastric and short gastric vein</i>	<i>Lower systemic oesophageal vein</i>	<i>Haemetemesis (or) malena</i>
<i>2.Around umbilicus</i>	<i>Paraumbilical veins</i>	<i>Superior veins of the anterior abdominal wall</i>	<i>Caput medusae</i>
<i>3.Plexus around the lower third of rectum and anal canal</i>	<i>Superior haemorrhoidal vein</i>	<i>middle and inferior haemorrhoidal vein</i>	<i>Rectal varices (heavy bleeding through the anus)</i>
<i>4.extraperitoneal surfaces of abdominal organ</i>	<i>Tributaries of superior and inferior mesenteric veins</i>	<i>Sub diaphragmatic and Retroperitoneal veins</i>	<i>Silent</i>

Pathogenesis of Haemorrhoids in Portal hypertension

In the chronic liver disease due to any cause, scar tissue is formed which interrupts normal blood flow causing to sustained elevation in the blood pressure.

This sustained elevation of blood pressure leads to the visceral congestion and it causes the large amount of blood to be pooled in the portal system. It is analogous to water build up behind a dammed up stream. This occurs slowly as liver disease develops, allowing the body compensate by formation of more blood.

*When a stream is dammed up, water accumulates until the dam overflows. Like that, there is increase in the portal pressure up to a maximum limit later it drains the remaining blood by opening the collateral connections due to **backward pressure of portal system**.*

Connections from the portal system to the inferior venecava include.

- *Haemorrhoidal veins*
- *Splenorenal collaterals and*
- *Some abdominal and retroperitoneal collaterals*

Connections from the portal system to the superior venecave include

- *Gastric verices*
- *Oesophageal varices*

The re-opened umbilical veins through abdominal wall collaterals to the inter mammary system.

When the backward pressure prefers the inferior venecaval system, this deviation of blood into these channels leads to varicosities at the lower end of the anus called haemorrhoids.

These fragile blood vessels known as varices which become stretched swollen and twisted and in danger of breaking and bleeding.

Predisposing causes of internal hemorrhoids.

- *Familial congenital weakness of the venous wall*
- *The weak submucous connective tissue of rectum*
- *The rectal venous plexuses which are most dependent on the portal circulation*
- *The venous return interrupted by the muscular contraction of rectum during defecation.*

When a patients has above explained predisposing causes along with portal hypertension the occurrence of piles is very easily precipitated by cirrhosis of the liver.

Other clinical manifestations of portal Hypertension

Jaundice

In acute failure – Jaundice parallels the extent of liver cell damage

In cirrhosis - Jaundice is very mild.

Ascites

This is due to

- *Lowering of plasma oncotic pressure*
- *Increased capillary hydrostatic pressure*
- *Increased lymph production in the space of tissue due to increased sinusoidal pressure.*

Hepatic encephalopathy

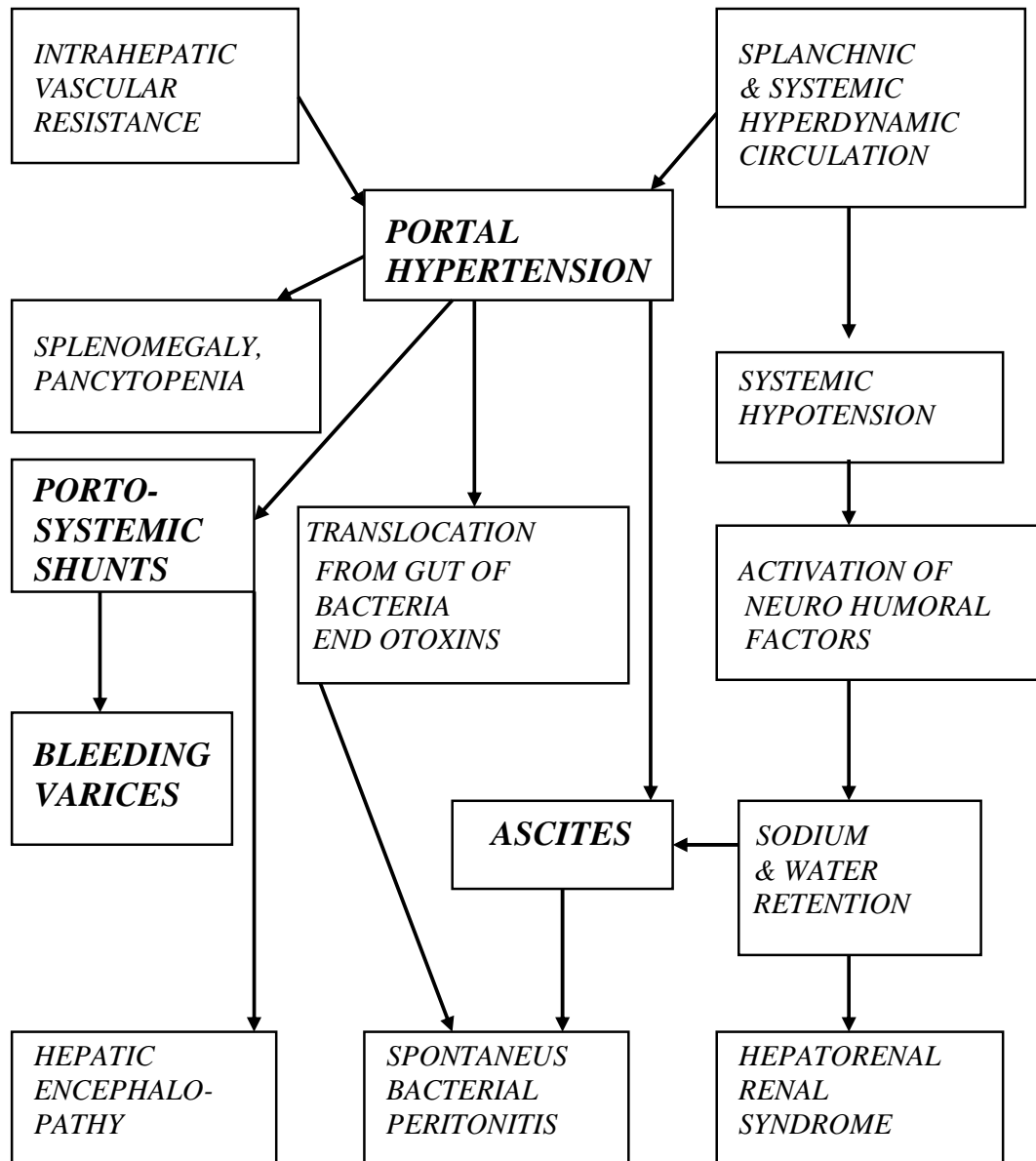
Cirrhosis of liver also decreases hepatic clearance of substances from the systemic circulation this increases the portal input of substance such as ammonia and other toxic substance from Gastro intestinal tract, which by passes liver and the enters the brain producing the serious effect.

Splenomegally

Increase in portal hypertension causes splenic congestion, the engorged spleen more effectively destroys blood cellular elements, contributing to anemia, leucopenia and Thrombocytopenia.

CONSEQUENCES OF CIRCULATORY CHANGES IN

CIRRHOSIS



CLINICAL FEATURES OF BLEEDING PILES

Constipation

Longstanding constipation leads to the development of piles states and hence it is the commonest and prominent in the clinical history. History of constipation is not usual in the bleeding, but it occurs in later stage.

Pain and Tenuesmus

This is marked feature in most of the piles cases, but in bleeding piles is less prominent. This occurs during the defaecation process in long standing cases it becomes trouble some while maintaining day to day activities.

Discharge

Mucous discharge is present in selected cases during the bowel movements than that of fistula cases, well the watery discharge is a prominent feature through out the day. But this is not a phemomenon in bleeding piles.

Bleeding

Bleeding is a remarkable prominent symptom which brings the patient to physician's table only when the notable amount of fresh blood is present during defaecation process which is often refered as "splashing of the pan".

Protrusion of pile mass

In the longstanding cases of internal hemorrhoids protrusion becomes a common aspect which sometimes need manual corrections.

BLEEDING PER ANUS

Bleeding per anus can be classified in to two groups of which one is painful and other is painless condition.

Bleeding per anus with pain

- *Fissure in anus*
- *Fistula in ano*
- *Carcinoma of the anal canal*
- *Ruptured perianal haematoma*
- *Ruptured anorectal abscess*
- *Injury etc.*

Bleeding per anus without pain

- *Blood alone = polyp, villous adenoma and diverticular disease, complicated portal hypertension.*
- *Blood during defecation – haemorrhoid*
- *Blood with mucous: ulcerative colitis, crohn's disease*
Intussusception, ischemic colon etc
- *Blood mixed with stool – carcinoma of the colon*
- *Blood streaked on stool – carcinoma of the rectum, fissure in ano*

Bleeding per anum other than haemorrhoides

Classification

- *Defects of blood vessels*
 - a. *The vascular purpura*
 - b. *Hereditary haemorrhagic telangiectasis*
- *Disorders of blood platelets*
- *Defects of the clotting mechanism*
 - a. *Hereditary*
 - b. *Acquired*

The above mentioned are less common haemorrhage disorders due to defects in the clotting mechanism.

Differential Diagnosis

Fissure in ano

An enlarged abscess in the long axis of the lower anal canal. Acute anal fissure is a deep tear through the skin of the anal margin extending into the anal canal. There is little inflammatory induration or oedema of its edges. There is accompanying spasm of the anal sphincter muscles. Chronic anal fissure is characterised by inflamed indurated margins and base consisting of either scar tissue or the lower border of the internal sphincter muscles. Sharp, agonizing pain starting during defaecation, often overwhelming in intensity and lasting an hour or more. Bleeding is

usually slight and consists of bright streaks on the stools. A slight discharge may present in fully established cases.

Ano rectal abscess

These are three types

- *Perianal*
- *Ischio – rectal and*
- *Pelvi rectal abscess*

Perianal abscess an acutely tender rounded cystic lump will be seen by the side of the anal verge below the Hilton's line, palpated by the index finger and the abscess is less painful.

Ischio – rectal patient will complain of excruciating throbbing pain by the side of anal canal on inspection brownish oedematous swelling is felt on the side of the rectum.

Pelvi – rectal abscess it mimics pelvis abscess. This abscess lies above the levator ani but below the pelvic peritoneum.

External haemorrhoids: (Perianal haematomes)

It is covered by the skin very painful and on examination a tense tender swelling which resembles a semi – ripe black currant is seen. These episodes result in a tender blue swelling at the anal verge due to thrombosis of a vein in the external plexus.

Prolapse of rectum

The main complaints are something comes out per rectum during defaecation. It may come out spontaneously on standing, walking or coughing. The prolapse may reduce spontaneously or require digital reduction. Other symptoms are anorectal bleeding, mucous discharge anal pain.

Fistula -in - ano

A fistula in ano is attracting lined granulation tissue, which connects deeply in the anal canal or rectum and superficially on the skin around or rectum and superficially on the skin around the anus. It usually results from anorectal abscess which burst spontaneously. The fistula continues to discharge because of reinfection and no pain is felt on proctoscopic examination.

Carcionma of the rectum:

The symptoms are bleeding during defaecation proliferative growth in the ampulla, sense of incomplete defaecation and the patient may get up in the morning with drawn urgent urge for defaecation. In case of annular carcinoma affecting the upper part of rectum, the patient complains of increasing constipation. Liver should always be palpated for metastasis. Peritoneum may be studded with secondary deposits. Ascites may be the result and enlarged iliac group of nodes can be felt.

Complications

- *Profuse Hemorrhage*
- *Strangulations*
- *Thrombosis*
- *Ulceration*
- *Gangrene*
- *Fibrosis*
- *Suppuration*
- *Pylephlebitis (portal pyaemia)*

EVALUATION OF THE DISSERTATION TOPIC

Materials and Methods

*The pathological evaluation on topic “**Raktha Moolam**” was carried out at the Post Graduate Department of Noi – Naadal branch in Government Siddha Medical College, Palayamkottai.*

1. Selection of cases

Bleeding per rectum of 20 cases are selected from the outpatient department of Government Siddha Medical College, Tirunelveli Medical College, AVB Gastro care clinic and Velayutham Pillai hospital. In this 2 typical cases of Raktha Moolam was selected and followed by author whose work was under close supervision of the professor and lectures of the post graduate of Noi - Naadal Department.

Evaluation of clinical parameters

A detailed history and clinical features of the patients were taken carefully. The clinical history contains.

- 1. Detailed history of past and present illness.*
- 2. Family history.*
- 3. Personal history.*
- 4. Occupational history.*
- 5. Dietary habits.*
- 6. Age and Sex difference.*

Clinical features of Raktha Moolam

- *Pain in (or) around the umbilicus*
- *Spurting of blood from the anus.*
- *Anaemia*
- *Easy Fatigability*
- *Oedema*
- *Throbbing chest pain*
- *Headache*
- *Drowsiness*
- *Yellowishness of the eyes.*

Study on Siddha Clinical Diagnosis

Modes of investigating the cases are Poriyaal Arithal, Pulanaal Arithal and Vinaathal were adapted to asses the humoral pathology. These modes were carried on the fundamental of Udal Kattugal and Envagai Thervu.

The clinical investigation

For further detailed study about the modern investigatory parameter were used the following laboratory investigation were done in these cases.

Blood

- *Total count*
- *Differential count*
- *Erythrocyte sedimentation rate.*
- *Haemoglobin estimation.*

Urine

- *Albumin*
- *Sugar*
- *Deposits*

Motion

- *Ova*
- *Cyst*

Specific test

- *Ultra sonogram*
- *Sigmoidoscopy (or) protoscopy*
- *Liver biopsy*
- *Liver function test.*

STATISTICAL ANALYSIS

RAKTHA MOOLAM

Statistical Analysis

The study subjects are analysed by the statistic of mean, median, standard deviation and percentages. The inferences were arrived by the Test of significance students 't' test. The risk factors are inferred by the odds ratio.

Observation and results

Table 7: Age and sex wise classification of the study trials.

S. No.	Sex	Age Group					Total	Mean	S. d	't'	Significance
		20-29	30-39	40-49	50-59	60-69					
1	Male	1	5	2	4	2	14	45.7	12.7	0.357	$P > 0.05$
2	Female	1	0	3	1	1	6	46.7	13.3		
	Total	2	5	5	5	3	20	46.0	12.5	-	-

The mean ages of male and female or 45.7 ± 12.7 and 46.7 ± 13.3 respectively. The difference between the means is not statistically significant. The both sexes are having the same age.

*Etiological factors**Table 8: The Etiological factors distributed with percentage.*

<i>S. No.</i>	<i>Aetiological factor</i>	<i>n</i>	<i>Cases affected</i>	
			<i>No</i>	<i>%</i>
<i>1.</i>	<i>Alcohol</i>	<i>20</i>	<i>6</i>	<i>30</i>
<i>2.</i>	<i>Cirrhosis of liver</i>	<i>20</i>	<i>2</i>	<i>10</i>
<i>3.</i>	<i>Chornic constipation</i>	<i>20</i>	<i>16</i>	<i>80</i>
<i>4.</i>	<i>High fatty diet</i>	<i>20</i>	<i>6</i>	<i>30</i>
<i>5.</i>	<i>Prolonged sitting</i>	<i>20</i>	<i>9</i>	<i>45</i>

*Chronic constipation scored eighty percentage to the affected cases next, prolonged sitting scored 45% Alcohol and heavy fatty diet Scored 30% each. From the above table, **cirrhosis of liver** is also a cause for Raktha Moolam as it is a rare manifestation it scored only 10%.*

Risk factor

Some habits of the study subjects are analysed. They are attributed to the risk factor of the diseases. The risk factors are enumerated below.

Table 9: Attributed risk factors with diseases.

<i>S. No.</i>	<i>Risk factor</i>	<i>n</i>	<i>Odds ratio</i>	<i>Significance</i>	<i>Risk told</i>
<i>1.</i>	<i>Alcohol with Heavy fatty diet</i>	<i>6</i>	<i>3.7</i>	<i>Significance</i>	<i>3.7 times</i>
<i>2.</i>	<i>Prolonged sitting with chronic constipation</i>	<i>8</i>	<i>3</i>	<i>Significance</i>	<i>3 times</i>
<i>3.</i>	<i>Exposure to excessive heat with chronic constipation</i>	<i>5</i>	<i>4.3</i>	<i>Significance</i>	<i>4.3 times</i>

The above table shows that the risk of alcohol with heavy fatty diet intake is 3.7 times greater than the risk of without heavy fatty diet. Prolonged sitting with constipation risk is 3 times greater than the prolonged sitting without constipation. Similarly Excess heat exposure of chronic constipation risk is 4.3 times greater than without excess heat exposure.

Mukkuutra Nilaigal:***Table 10: Percentage distribution of Mukkuutra Nilaigal.***

<i>S. No.</i>	<i>Component</i>	<i>n</i>	<i>Types of Mukkultra Nilai</i>	<i>No</i>	<i>%</i>
<i>1.</i>	<i>Vali</i>	<i>20</i>	<i>Pranan</i>	<i>9</i>	<i>45.0</i>
		<i>20</i>	<i>Abanan</i>	<i>20</i>	<i>100.0</i>
		<i>20</i>	<i>Viyanan</i>	<i>4</i>	<i>20.0</i>
		<i>20</i>	<i>Uthanan</i>	<i>10</i>	<i>50.0</i>
		<i>20</i>	<i>Samanan</i>	<i>10</i>	<i>50.0</i>
		<i>20</i>	<i>Koorman</i>	<i>2</i>	<i>10.0</i>
		<i>20</i>	<i>Kirukaran</i>	<i>12</i>	<i>60.0</i>
		<i>20</i>	<i>Devathathan</i>	<i>12</i>	<i>60.0</i>
<i>2.</i>	<i>Azhal</i>	<i>20</i>	<i>Anal pitham</i>	<i>12</i>	<i>60.0</i>
		<i>20</i>	<i>Ranjaga pitham</i>	<i>13</i>	<i>60</i>
		<i>20</i>	<i>Sadhaga pitham</i>	<i>5</i>	<i>25.0</i>
		<i>20</i>	<i>Prasaga pitham</i>	<i>13</i>	<i>65.0</i>
<i>3.</i>	<i>Iyam</i>	<i>20</i>	<i>Avalampagam</i>	<i>13</i>	<i>65.0</i>
		<i>20</i>	<i>Kilathagam</i>	<i>13</i>	<i>65.0</i>
		<i>20</i>	<i>Bothagam</i>	<i>11</i>	<i>15.0</i>
		<i>20</i>	<i>Tharpagam</i>	<i>2</i>	<i>10.0</i>
		<i>20</i>	<i>Santhigam</i>	<i>1</i>	<i>5.0</i>

*Udal Thathukkal:**Table 11: Distribution of Udal Thathukkal with percentage.*

<i>S. No.</i>	<i>Udal thathukkal</i>	<i>n</i>	<i>affected</i>	
			<i>No</i>	<i>%</i>
<i>1.</i>	<i>Saaram</i>	<i>20</i>	<i>20</i>	<i>100</i>
<i>2.</i>	<i>Senneer</i>	<i>20</i>	<i>14</i>	<i>70.0</i>
<i>3.</i>	<i>Oon</i>	<i>20</i>	<i>4</i>	<i>20.0</i>
<i>4.</i>	<i>Kozhuppu</i>	<i>20</i>	<i>4</i>	<i>20.0</i>
<i>5.</i>	<i>Enbu</i>	<i>20</i>	<i>1</i>	<i>5.0</i>

Cent percentages of the cases are affected by saaram. 70% of the study subjects are affected by senneer. The oon and kozhuppu are affected in 20% of the cases each. Enbu is affected only in 5% of the subjects.

*Manikadai Nool:**Table 12: Study subjects are classified according to the Viralkadai Alavu.*

<i>S. No.</i>	<i>Viralkadai Alavu</i>	<i>n</i>	<i>Affected</i>	
			<i>No of cases affected</i>	<i>% of cases affected</i>
<i>1</i>	<i>7</i>	<i>120</i>	<i>12</i>	<i>60%</i>
<i>2.</i>	<i>7 ½</i>	<i>20</i>	<i>6</i>	<i>30%</i>
<i>3</i>	<i>8</i>	<i>20</i>	<i>2</i>	<i>10%</i>

The above table gives the Viralkadai Alavu of the Raktha Moolam subjects. From this Viralkadai Alavu 7 is noted for 60% cases then 7 ½ is noted for 30% cases and for Viralkadai Alavu 8 is noted only in 10% cases.

Ennvagai Thervugal

The study subjects were observed by the Siddha diagnosis. The observed diagnosed results are enumerated in the table.

Table 13: Study subjects classified according to Ennvagai Thervugal.

<i>S. No.</i>	<i>Ennvagai thervugal</i>	<i>n</i>	<i>Types</i>	<i>Affected</i>	
				<i>No</i>	<i>%</i>
<i>1.</i>	<i>Naadi</i>	<i>20</i>	<i>Azhal iyam</i>	<i>4</i>	<i>20.0</i>
			<i>Iya vali</i>	<i>1</i>	<i>5.0</i>
			<i>Vali Azhal</i>	<i>1</i>	<i>5.0</i>
			<i>Azhal Vali</i>	<i>4</i>	<i>20.0</i>
<i>2.</i>	<i>Sparisam</i>	<i>20</i>		<i>16</i>	<i>80.0</i>
<i>3.</i>	<i>Naa</i>	<i>20</i>		<i>13</i>	<i>65.0</i>
<i>4.</i>	<i>Niram</i>	<i>20</i>		<i>13</i>	<i>65.0</i>
<i>5.</i>	<i>Vizhi</i>	<i>20</i>		<i>14</i>	<i>70.0</i>
<i>6.</i>	<i>Malam</i>	<i>20</i>		<i>16</i>	<i>80.0</i>

The above table shows the selection and observation of the cases.

From this the Typical Raktha Moolam patients shows Iya Vali and Iya Azhal Naadi. In the other study subjects 20% of the cases are affected by Azhal Iyam and Azhal Vali each. 50% of the cases are affected by Vali Azhal. Sparisam is affected in 80% cases Vizhi is affected in 70% cases. The Naa and Niram are affected in 65% cases.

Clinical features:***Table 14: Clinical findings of the study subjects.***

<i>S. No.</i>	<i>Clinical features</i>	<i>n</i>	<i>Affected</i>	
			<i>No</i>	<i>%</i>
<i>1</i>	<i>Pain in (or) around the umbilicus</i>	<i>20</i>	<i>2</i>	<i>10.0</i>
<i>2</i>	<i>Bleeding per rectum</i>	<i>20</i>	<i>20</i>	<i>100</i>
<i>3.</i>	<i>Anaemia</i>	<i>20</i>	<i>12</i>	<i>60</i>
<i>4.</i>	<i>Easy fatigability</i>	<i>20</i>	<i>11</i>	<i>55</i>
<i>5.</i>	<i>Oedema</i>	<i>20</i>	<i>5</i>	<i>25</i>
<i>6.</i>	<i>Throbbing chest pain</i>	<i>20</i>	<i>2</i>	<i>10</i>
<i>7.</i>	<i>Head ache</i>	<i>20</i>	<i>2</i>	<i>10</i>
<i>8.</i>	<i>Drowsiness</i>	<i>20</i>	<i>2</i>	<i>10</i>
<i>9.</i>	<i>Yellowishness of eyes</i>	<i>20</i>	<i>2</i>	<i>10</i>

The above analysis shows that cent percentage of the cases are having bleeding per rectum.

Anaemia is seen in 60% cases. Easy fatigability and edemas are seen 55% and 25% respectively 10% cases are affected with Throbbing chest pain, Head ache, Drowsiness and Yellowish ness of Eye.

Thus, only the 2 typical cases satisfy all the clinical feature mentioned by the disease Raktha Moolam.

Laboratory Investigation:**Table 15: Analysis of the clinical Hematological trials.**

S. No.	Sex	n	n	%	n	%	Population normal mean	Space mean	S.D	t'	Significant
1	Male	14	5	35.7	9	64.3	15 mgs	10.7	3.2	5.0	$P<0.00$
2.	Female	6	2	33.3	4	66.7	13.25 mgs	9.8	2.0	4.2	$P<0.00$

From the above interpretations the Hb level in male is $10.7 + 3.2$ mgs%. Which is very less than 15mgs of normal mean value. The differences between the two mean values is highly statistically significant.

Similarly, the female sex is also having much lesser Hemoglobin level than the Normal value. This difference is also highly statistically significant.

In respect to Serum bilirubin The 2 typical cases alone has increased value compared to the Normal level.

DISCUSSION

Interpretation of Parameters

Patients with bleeding complaints from the anus were interrogated thoroughly and their history, aliments characters of signs and symptoms were noted in materials and method

The inference obtained from this is explained as follows.

Age and Sex distribution

In this male were predominantly affected and the incidence is high in the age group above 40 years. This is due to their habits of alcoholism.

Family history

Genetic history present only in the general bleeding piles cases. However, in this play, it is an important predisposing character which easily contributes rupture of the veins and gets bleeding.

Personal habits

The incidence of this disease is high in peoples who take high fatty diet and alcoholic.

Alcoholic for more than 10 years.

Residential area

There is no direct relationship with the residential area. Irrespective of their residing place, the food habit and heavy alcoholism will lead to the disease soon.

Paruvakalangal

There is no direct relationship with seasonal variation.

Siddha parameters***Mukkutram***

Vali, Azhal and Iyam constitutes the Mukkutrangal and the affected thathus are

Derangement in Vali***Table - 16***

<i>S. No</i>	<i>Types</i>	<i>Changes</i>	<i>Character</i>
<i>1</i>	<i>Pranan</i>	<i>Affected</i>	<i>Weakness of the limbs, headache, chest pain.</i>
<i>2</i>	<i>Abanan</i>	<i>Affected</i>	<i>Umbilicus pain, spurting of blood from the rectum.</i>
<i>3</i>	<i>Uthanan</i>	<i>Affected</i>	<i>Tiredness</i>
<i>4</i>	<i>Viyanan</i>	<i>Affected</i>	<i>Disturbed absorption and distribution of digested food substance.</i>
<i>5</i>	<i>Samanan</i>	<i>Affected</i>	<i>Disturbed circulation in portal vein. Indigestion.</i>
<i>6</i>	<i>Kooraman</i>	<i>Affected</i>	<i>Increased sleep.</i>
<i>7</i>	<i>Kirukaran</i>	<i>Affected</i>	<i>Loss of appetite.</i>
<i>8</i>	<i>Thevathathan</i>	<i>Affected</i>	<i>Tiredness, anxiety.</i>

Derangement of Azhal***Table – 17***

<i>S. No</i>	<i>Types</i>	<i>Changes</i>	<i>Character</i>
<i>1</i>	<i>Anal pitham</i>	<i>Affected</i>	<i>Loss of appetite.</i>
<i>2</i>	<i>Ranjagam</i>	<i>Affected</i>	<i>Anaemia</i>
<i>3</i>	<i>Sathagam</i>	<i>Affected</i>	<i>Giddiness and emaciation</i>
<i>4</i>	<i>Prasagam</i>	<i>Affected</i>	<i>Paleness of the skin.</i>

Derangement of Kabam***Table – 18***

<i>S. No</i>	<i>Types</i>	<i>Changes</i>	<i>Character</i>
<i>1</i>	<i>Avalambagam</i>	<i>Affected</i>	<i>Dyspnoea</i>
<i>2</i>	<i>Kilethagam</i>	<i>Affected</i>	<i>Indigestion</i>
<i>3</i>	<i>Pothagam</i>	<i>Affected</i>	<i>Nausea and hesitating foods.</i>

Udal Thaathukkal***Table – 19***

<i>S. No</i>	<i>Types</i>	<i>Changes</i>	<i>Character</i>
<i>1</i>	<i>Saaram</i>	<i>Affected (Decreased)</i>	<i>Loss of weight, lassitude and diminished activity of the sense organs.</i>
<i>2</i>	<i>Seneer</i>	<i>Affected (Decreased)</i>	<i>Anaemia and tiredness</i>
<i>3</i>	<i>Oon</i>	<i>Affected (Decreased)</i>	<i>Weight loss</i>
<i>4</i>	<i>Kozhuppu</i>	<i>Affected (Decreased)</i>	<i>Emaciation</i>
<i>5</i>	<i>Enbu</i>	<i>Affected (Decreased)</i>	<i>Splitting of hairs and nails</i>
<i>6</i>	<i>Mollai</i>	<i>Not affected</i>	<i>-</i>
<i>7</i>	<i>Sukkilam / Suronitham</i>	<i>Not affected</i>	

Interpretation Of Ennvagai Thervu

Naa

If the disease process takes a long course then the Naa becomes coated and pale. Except this all other qualities of Naa are usually normal.

Niram

The colour of the body is pale in colour. The colour change is due to veluppu noi. Which ensues after a long course of Raktha Moolam.

Vizhi

Vel Vizhi has a pale or yellow colouration due to cirrhotic liver.

Sparisam

Body is said as Ushnam (or) hyperthermic. Other features of sparisam are usually normal.

Malam

The colour is usually reddish yellow due to bleeding from rectal varices or dark brown due to gastric varices.

Constipation is encountered in later stage.

Moothiram

➤ ***Neerkuri:***

The colour is usually light reddish yellow. The amount is usually normal. But when veluppu and sobai develop the amount is reduced. There is no froth.

➤ ***Neikuri:***

Salladai kan pol sitharal – typical case

Aravil Moothiram and mellana paraval – due to internal piles.

Naadi:

The Kai Naadai in Raktha moolam is “Pitha Vatham” and “Vatha Pitham” in internal piles.

Aya azhal in typical case.

Interpretation of Modern parameters

After examination of clinical features by envagai thervugal, the patient was subject to essential laboratory an investigation which includes the following.

Haematological examination

Haemoglobin is lowered

Urine examinations

are normal

Stool examination

It is positive for occult blood

Liver function test

Bilurubin level is raised

SGOT level is raised

SGPT level is raised

Alkaline phosphatase level is raised

Ultra Sono Gram of Abdomen

It shows Hepatomegaly patently cirrhosis of liver.

Colour Doppler study

It shows evidence of portal hypertension

Liver biopsy

It also shows the evidence of post necrotic cirrhosis of liver.

HIGHLIGHTS OF THE DISSERTATION TOPIC

This Raktha moolam comes under Moola Noigal -21 in Yugi vaithya sinthamani which is explained by Yugi Munivar.

For any type of Moolam Vali humour is affected followed by alteration in other humors. But in Raktha moolam, Pitham is primarily vitiated this is followed by alteration in other humours.

*The Raktha moolam is characterized by the presence of pain in the umbilicus, bleeding in the rectum, followed by anaemia, oedema, head ache, chest pain and drowsiness which are the symptoms of internal piles, in addition to this yellowishness of the eyes is also present which indicates the manifestation of cirrhotic liver that makes the Raktha moolam, a **rare disease**.*

The underlying patho genesis for the Raktha moolam is any chronic liver disease resulting in cirrhosis leading to backward pressure in the portal vein and varicosities at the lower end of the anus.

CONCLUSION

The study on Raktha Moolam was carried out in this dissertation giving importance to the clinical features written in the poem and the changes, which are depicted in the Uyir Thathukkal and Udal Thathukkal.

All 1 to 20 cases were having the clinical features of bleeding per rectum and some of the cases have Anaemia, according to the severity of bleeding.

But only the 2 typical cases satisfy all the clinical features of the Raktha Moolam including yellowishness of the eyes.

On further investigating 1 to 20 typical cases with the help of modern parameters like, Liver function test, Liver biopsy, routine Blood and Urine investigations, Ultra sonogram and Colour Doppler study.

The study concludes that Raktha Moolam is an bleeding disorder in the anus which has the cirrhotic liver as the root cause for their occurrence followed by increased portal hypertension and varicosities in the anus.

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7. *Theriyar Gunavaagadam*
8. *Thirumoolar Ennayaram*
9. *Aaavi Alikkum Amuthamurai Churukkam*
10. *Aathma Rathchaamirtham – Kandasamy mudhaliyaar*
11. *Siddha maruthuvam –Dr. Kuppusamy Mudhaliyaar H.P.I.M.,*
12. *Udal Thathuvam – Dr. P.M. Venugopal H.P.I.M.,*
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P.G. -NOI NAADAL DEPARTMENT
GOVT. SIDDHA MEDICAL COLLEGE, PALAYAMKOTTAI.
A Study to Diagnose Raktha Moolam through Siddha
Diagnostic Methodology
SELECTION PROFORMA

1.O.P.No _____ 2. I.P. NO _____ 3. Bed No: _____ 4. S. No: _____5.Date: _____

6. Name: _____ 7. Age (Years):

--	--

 8. Sex:

M	F
---	---

9. Occupation: _____ 10. Income: _____/month

11. Address:

.....
.....
.....

12. Complaints and duration:

.....
.....
.....

13. History of present illness:

.....
.....
.....

14. Past history:

.....
.....
.....

15. Family History:

.....
.....
.....

Habits	1.Yes	2.No	
16. Betelnut chewer :	<input type="checkbox"/>	<input type="checkbox"/>	_____
17. Tea :	<input type="checkbox"/>	<input type="checkbox"/>	_____
18. Coffee :	<input type="checkbox"/>	<input type="checkbox"/>	_____
19. Prolonged sitting in a place :	<input type="checkbox"/>	<input type="checkbox"/>	_____
20. Smoking :	<input type="checkbox"/>	<input type="checkbox"/>	_____
21. Excess Alcohol in take :	<input type="checkbox"/>	<input type="checkbox"/>	_____
22. High Fatty diet :	<input type="checkbox"/>	<input type="checkbox"/>	_____
23. Low fiber diet :	<input type="checkbox"/>	<input type="checkbox"/>	_____
24. Intake of hot foods:	<input type="checkbox"/>	<input type="checkbox"/>	_____
25. Food habits :	V <input type="checkbox"/>	NV <input type="checkbox"/>	M <input type="checkbox"/> _____

GENERAL ETIOLOGY FOR RAKTHA MOOLAM

	1.Yes	2.No	
26. Exposure to Excessive cold	<input type="checkbox"/>	<input type="checkbox"/>	_____
27. Exposure to Excessive heat	<input type="checkbox"/>	<input type="checkbox"/>	_____
28. Heavy intake of Tubers	<input type="checkbox"/>	<input type="checkbox"/>	_____
29. Increased intake of salt	<input type="checkbox"/>	<input type="checkbox"/>	_____
30. Heavy intake of spicy food	<input type="checkbox"/>	<input type="checkbox"/>	_____
31. Increased anger	<input type="checkbox"/>	<input type="checkbox"/>	_____
32. Indulging excessively in sexual act	<input type="checkbox"/>	<input type="checkbox"/>	_____
33. Chronic Constipation	<input type="checkbox"/>	<input type="checkbox"/>	_____
34. Maintaining wrong Yogic posture	<input type="checkbox"/>	<input type="checkbox"/>	_____
35. Hereditary Predisposition	<input type="checkbox"/>	<input type="checkbox"/>	_____
36. History of Kiranthi	<input type="checkbox"/>	<input type="checkbox"/>	_____
37. Venous stasis of Pregnancy	<input type="checkbox"/>	<input type="checkbox"/>	_____
38. P/H of Hepatitis B. infection	<input type="checkbox"/>	<input type="checkbox"/>	_____

39. Portal hypertension	<input type="checkbox"/>	<input type="checkbox"/>	_____
40. Tumours of the Rectum	<input type="checkbox"/>	<input type="checkbox"/>	_____

GENERAL EXAMINATION

41. Weight(kg)	<input type="text"/>	<input type="text"/>	<input type="text"/>
42. Temperature(°F)	<input type="text"/>	<input type="text"/>	<input type="text"/>
43. Pulse rate/minute	<input type="text"/>	<input type="text"/>	<input type="text"/>
44. Heart rate/minute	<input type="text"/>	<input type="text"/>	<input type="text"/>
45. Respiratory rate/minute	<input type="text"/>	<input type="text"/>	<input type="text"/>
46. Blood pressure(mmHg)	<input type="text"/> mm/Hg		

	1.Yes	2.No	
47. Pallor	<input type="checkbox"/>	<input type="checkbox"/>	_____
48. Jaundice	<input type="checkbox"/>	<input type="checkbox"/>	_____
49. Cyanosis	<input type="checkbox"/>	<input type="checkbox"/>	_____
50. Lymphadenopathy	<input type="checkbox"/>	<input type="checkbox"/>	_____
51. Pedal edema	<input type="checkbox"/>	<input type="checkbox"/>	_____
52. Clubbing	<input type="checkbox"/>	<input type="checkbox"/>	_____
53. Jugular venous pulsation	<input type="checkbox"/>	<input type="checkbox"/>	_____

VITAL ORGANS EXAMINATION

	1.Normal	2.Affected	
54. Heart	<input type="checkbox"/>	<input type="checkbox"/>	_____
55. Lungs	<input type="checkbox"/>	<input type="checkbox"/>	_____
56. Brain	<input type="checkbox"/>	<input type="checkbox"/>	_____
57. Liver	<input type="checkbox"/>	<input type="checkbox"/>	_____
58. Kidney	<input type="checkbox"/>	<input type="checkbox"/>	_____
59. Spleen	<input type="checkbox"/>	<input type="checkbox"/>	_____
60. Stomach	<input type="checkbox"/>	<input type="checkbox"/>	_____

SIDDHA SYSTEM OF EXAMINATION
ENNVAGAI THERVUKAL

NAA

61. *Maa Padinthiruthal*

1. *Present* ☐

2. *Absent* ☐

62. *Niram*

1. *Karuppu* ☐

2. *Manjal* ☐

3. *Velluppu* ☐

63. *Suvai*

1. *Pulippu* ☐

2. *Kaippu* ☐

3. *Inippu* ☐

64. *Vedippu*

1. *Present* ☐

2. *Absent* ☐

65. *Vai neer oorai*

1. *Normal* ☐

2. *Increased* ☐

3. *Reduced* ☐

67. NIRAM

1. *Karuppu* ☐

2. *Manjal* ☐

3. *Velluppu* ☐

68. MOZHI

1. *Sama oli* ☐

2. *Urattha oli* ☐

3. *Thazhntha oli* ☐

VIZHI

69. *Niram*

1. *Karuppu* ☐

2. *Manjal* ☐

3. *Sivappu* ☐

4. *Velluppu* ☐

70. *Kanneer*

1. *Present* ☐

2. *Absent* ☐

71. *Erichchal*

1. *Present* ☐

2. *Absent* ☐

72. *Peelai seruthal*

1. *Present* ☐

2. *Absent* ☐

MEI KURI

73.Veppam

1. Mitham

☐

2. Migu

☐

3. Thatpam

☐

74.Viyarvai

1. Normal

☐

2. Increased

☐

3. Reduced

☐

75.Thodu vali

1. Present

☐

2. Absent

☐**MALAM**

76.Niram

1. Karuppu

☐

2. Manjal

☐

3. Sivappu

☐

4. Velluppu

☐

77.Sikkal

1. Present

☐

2. Absent

☐

78.Sirutthal

1. Present

☐

2. Absent

☐

79.Kalichchal

1. Present

☐

2. Absent

☐

80.Seetham

1. Present

☐

2. Absent

☐

81.Vemmai

1. Present

☐

2. Absent

☐**MOOTHIRAM****NEER KURI**

82.Niram

1. Venmai

☐

2. Manjal

☐

3. Crystal clear

☐

83.Manam

1. Present

☐

2. Absent

☐

84.Nurai

1. Nil ☐

2.Increased ☐

3. Reduced ☐

85.Edai(Ganam)

1. Normal ☐

2. Increased ☐

3. Reduced ☐

86.Enjal(Alavu)

1. Normal ☐

2. Increased ☐

3. Reduced ☐

87.NEI KURI

1. Aravam ☐

2. Mothiram ☐

3. Muthu ☐

4. Aravil Mothiram ☐

5. Aravil Muthu ☐

6. Mothirathil Aravam ☐

7. Mothirathil Muthu ☐

8. Muthil Aravam ☐

9. Muthil Mothiram ☐

10. Asathiyam ☐

11. Mellena paraval ☐

NAADI(KAI KURI)

I. Naadi Nithanam

88. Kaalam

1. Kaarkaalam ☐

2. Koothirkaalam ☐

3. Munpanikaalam ☐

4. Pinpanikaalam ☐

5. Ilavenirkaalam ☐

6. Muthuvenirkaalam ☐

89. Desam

1. Kulir ☐

2. Veppam ☐

90. Vayathu

1. 1-33yrs ☐

2.34-66yrs ☐

3. 67-100yrs ☐

91. Udal Vanmai

1. Iyalbu ☐

2. Valivu ☐

3. Melivu ☐

92. Vanmai

1. Vanmai ☐

2. Menmai ☐

93. Panbu

- | | | | | | |
|----------------|--------------------------|--------------|--------------------------|---------------|--------------------------|
| 1. Thannadai | <input type="checkbox"/> | 2. Puranadai | <input type="checkbox"/> | 3. Illaitthal | <input type="checkbox"/> |
| 4. Kathithal | <input type="checkbox"/> | 5. Kuthithal | <input type="checkbox"/> | 6. Thullal | <input type="checkbox"/> |
| 7. Azhutthal | <input type="checkbox"/> | 8. Padutthal | <input type="checkbox"/> | 9. Kalatthal | <input type="checkbox"/> |
| 10. Munnokku | <input type="checkbox"/> | 11. Pinnokku | <input type="checkbox"/> | 12. Suzhalal | <input type="checkbox"/> |
| 13. Pakkanokku | <input type="checkbox"/> | | | | |

94. Naadi nadai

- | | | | | | |
|---------------|--------------------------|--------------|--------------------------|---------------|--------------------------|
| 1.Vali | <input type="checkbox"/> | 2. Azhal | <input type="checkbox"/> | 3.Iyam | <input type="checkbox"/> |
| 4. Vali Azhal | <input type="checkbox"/> | 5. Vali Iyam | <input type="checkbox"/> | 6. Azhal Vali | <input type="checkbox"/> |
| 7 Azhal Iyam | <input type="checkbox"/> | 8. Iya vali | <input type="checkbox"/> | 9. Iya Azhal | <input type="checkbox"/> |

95. MANIKKADAI NOOL (Viral Kadai Alavu)

IYMPORIGAL / IYMPULANGAL

- | | 1.Normal | 2.Affected |
|-----------|--------------------------|--------------------------------|
| 96.Mei | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 97.Vaai | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 98.Kan | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 99.Mookku | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 100.Sevi | <input type="checkbox"/> | <input type="checkbox"/> _____ |

KANMENTHIRIYANGAL / KANMAVIDAYANGAL

- | | 1.Normal | 2.Affected |
|--------------|--------------------------|--------------------------------|
| 101.Kai | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 102.Kaal | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 103.Vaai | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 104.Eruvaai | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 105.Karuvaai | <input type="checkbox"/> | <input type="checkbox"/> _____ |

106. YAAKAI

- | | | | | | |
|--------------|--------------------------|-------------|--------------------------|--------------|--------------------------|
| 1.Vali | <input type="checkbox"/> | 2.Azhal | <input type="checkbox"/> | 3.Iyam | <input type="checkbox"/> |
| 4.Vali Azhal | <input type="checkbox"/> | 5.Vali Iyam | <input type="checkbox"/> | 6.Azhal Vali | <input type="checkbox"/> |
| 7.Azhal Iyam | <input type="checkbox"/> | 8.Iya Vali | <input type="checkbox"/> | 9.Iya Azhal | <input type="checkbox"/> |

107.GUNAM

- | | | | | | |
|-----------------|--------------------------|----------------|--------------------------|----------------|--------------------------|
| 1.Sathuva Gunam | <input type="checkbox"/> | 2.. Raso Gunam | <input type="checkbox"/> | 3. Thamo Gunam | <input type="checkbox"/> |
|-----------------|--------------------------|----------------|--------------------------|----------------|--------------------------|

UYIR THATHUKKAL**I. Vali**

- | | 1. Normal | 2. Affected |
|---------------------------------|--------------------------|--------------------------------|
| 108. Uyirkkaal (Praanan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 109. Keelnokkukkaal (Abaanan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 110. Paravukaal (Viyaanan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 111. Melnokkukkaal (Udhaanan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 112. Nadukkaal (Samaanan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 113. VaanthikKaal (Naahan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 114. Vizhikkaal (Koorman) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 115.Thummikkaal (Kirukaran) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 116. Kottavikkaal (Devathathan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 117. Veengukkaal (Dhananjeyan) | <input type="checkbox"/> | <input type="checkbox"/> _____ |

II. Azhal

- | | 1.Normal | 2. Affected |
|----------------------------------|--------------------------|--------------------------------|
| 118.Aakkanal (Anala pitham) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 119.Ollolithe (Prasaka pitham) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 120.Vannaeri (Ranjaka pitham) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 121.Nokkazhal (Aalosaka pitham) | <input type="checkbox"/> | <input type="checkbox"/> _____ |
| 122.Aatralangi (Saathaka pitham) | <input type="checkbox"/> | <input type="checkbox"/> _____ |

III. Iyam

	<i>1. Normal</i>	<i>2. Affected</i>
123.Aliiyam (Avalambagam)	<input type="checkbox"/>	<input type="checkbox"/> _____
124.Neerppiiyam (Kilethagam)	<input type="checkbox"/>	<input type="checkbox"/> _____
125.Suvaikaaniyam (Pothagam)	<input type="checkbox"/>	<input type="checkbox"/> _____
126.Niraivuiyam (Tharpagam)	<input type="checkbox"/>	<input type="checkbox"/> _____
127.Ondriiyam (Santhigam)	<input type="checkbox"/>	<input type="checkbox"/> _____

UDAL THATHUKKAL

	<i>1. Normal</i>	<i>2. Affected</i>
128.Saaram	<input type="checkbox"/>	<input type="checkbox"/> _____
129.Senneer	<input type="checkbox"/>	<input type="checkbox"/> _____
130.Oon	<input type="checkbox"/>	<input type="checkbox"/> _____
131.Kozhuppu	<input type="checkbox"/>	<input type="checkbox"/> _____
132.Enbu	<input type="checkbox"/>	<input type="checkbox"/> _____
133.Moolai	<input type="checkbox"/>	<input type="checkbox"/> _____
134.Suronitham/ Sukkilam	<input type="checkbox"/>	<input type="checkbox"/> _____

MUKKUTRA MIGU GUNAM

I. Vali Migu Gunam

	<i>1. Present</i>	<i>2. Absent</i>
135.Emaciation	<input type="checkbox"/>	<input type="checkbox"/>
136.Blackish colouration of the body	<input type="checkbox"/>	<input type="checkbox"/>
137.Desire to take hot food	<input type="checkbox"/>	<input type="checkbox"/>
138.Tremors	<input type="checkbox"/>	<input type="checkbox"/>
139.Abdominal distension	<input type="checkbox"/>	<input type="checkbox"/>
140.Insomnia	<input type="checkbox"/>	<input type="checkbox"/>

141. Weakness	<input type="checkbox"/>	<input type="checkbox"/>
142. Weakness of sense organs	<input type="checkbox"/>	<input type="checkbox"/>
143. Giddiness	<input type="checkbox"/>	<input type="checkbox"/>
144. Sluggishness	<input type="checkbox"/>	<input type="checkbox"/>
145. Constipation	<input type="checkbox"/>	<input type="checkbox"/>

II. Azhal Migu Gunam

1. Present

2. Absent

146. Yellowish discolouration of the skin	<input type="checkbox"/>	<input type="checkbox"/>
147. Yellowish discolouration of the eye	<input type="checkbox"/>	<input type="checkbox"/>
148. Yellowish discolouration of urine	<input type="checkbox"/>	<input type="checkbox"/>
149. Yellowish discolouration of faeces	<input type="checkbox"/>	<input type="checkbox"/>
150. Increased appetite	<input type="checkbox"/>	<input type="checkbox"/>
151. Burning sensation in the body	<input type="checkbox"/>	<input type="checkbox"/>
152. Insomnia	<input type="checkbox"/>	<input type="checkbox"/>

III. Iyam Migu Gunam

1. Present

2. Absent

153. Excessive salivation	<input type="checkbox"/>	<input type="checkbox"/>
154. Eraippu (dyspnoea)	<input type="checkbox"/>	<input type="checkbox"/>
155. Heaviness of the body	<input type="checkbox"/>	<input type="checkbox"/>
156. Whiteness of the body	<input type="checkbox"/>	<input type="checkbox"/>
157. Chillness of the body	<input type="checkbox"/>	<input type="checkbox"/>
158. Reduced appetite	<input type="checkbox"/>	<input type="checkbox"/>
159. Cough	<input type="checkbox"/>	<input type="checkbox"/>
160. Increased sleep	<input type="checkbox"/>	<input type="checkbox"/>
161. Sluggishness	<input type="checkbox"/>	<input type="checkbox"/>

162.NOI UTRA KAALAM

1. Kaarkaalam

☐

2. Koothirkaalam

☐

3.Munpanikaalam

☐

4.Pinpanikaalam

☐

5.Ilavenirkaalam

☐

6.Muthuvenirkaalam

☐**163.NOI UTRA NILAM**

1.Kurinji

☐

2.Mullai

☐

3.Marutham

☐

4.Neithal

☐

5.Paalai

☐

164.Date of Birth

165.Time of Birth

 am/pm

166.Place of Birth

167.NATCHATHIRAM

1.Aswini

☐

2.Barani

☐

3.Karthikai

☐

4.Rohini

☐

5.Mirugaseeridam

☐

6.Thiruvathirai

☐

7.Punarpoosam

☐

8.Poosam

☐

9.Aayilyam

☐

10.Makam

☐

11.Pooram

☐

12.Utthiram

☐

13.Astham

☐

14.Chithirai

☐

15.Swathi

☐

16.Visakam

☐

17.Anusam

☐

18.Kettai

☐

19.Moolam

☐

20.Pooradam

☐

21.Utthiradam

☐

22.Thiruvonam

☐

23.Avittam

☐

24.Sadayam

☐

25.Poorattathi

☐

26.Utthirattathi

☐

27.Revathi

☐

00.Not known

☐

168.RAASI

1.Mesam	<input type="checkbox"/>	2.Rishabam	<input type="checkbox"/>	3.Midhunam	<input type="checkbox"/>
4.Kadakam	<input type="checkbox"/>	5.Simmam	<input type="checkbox"/>	6.Kanni	<input type="checkbox"/>
7.Thulam	<input type="checkbox"/>	8.Viruchiham	<input type="checkbox"/>	9.Dhanusu	<input type="checkbox"/>
10.Maharam	<input type="checkbox"/>	11.Kumbam	<input type="checkbox"/>	12.Meenam	<input type="checkbox"/>
00.Not known	<input type="checkbox"/>				

RECTAL EXAMINATION

169.Inspection

1.Place :

.....

2.Shape :

.....

3.Colour :

.....

4.Base :

.....

5.Discharge :

.....

170.Palpation :

.....

171.Bimannual Examination:

.....

.....

INVESTIGATION

BLOOD

172.TC (Cells/cumm)	:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
173.DC (%)	:	1.P <input type="text"/> <input type="text"/> 2.L <input type="text"/> <input type="text"/> 3.E <input type="text"/> <input type="text"/> 4.B <input type="text"/> <input type="text"/> 5.M <input type="text"/>
174.Hb (gms%)	:	<input type="text"/> <input type="text"/> . <input type="text"/>
175.E.S.R. (mm/hr)	:	1.1/2hr <input type="text"/> <input type="text"/> 2.1hr <input type="text"/> <input type="text"/>
176.Blood Sugar (R) (mgs%)	:	<input type="text"/> <input type="text"/> <input type="text"/>

URINE

177.Albumin	:	0.Nil <input type="text"/> 1.Trace <input type="text"/> 2.+ <input type="text"/> 3.++ <input type="text"/> 4.+++ <input type="text"/>
178.Sugar	:	0.Nil <input type="text"/> 1.Trace <input type="text"/> 2.+ <input type="text"/> 3.++ <input type="text"/> 4.+++ <input type="text"/>

DEPOSITS

	1. Yes	2. No
179. Pus cells	<input type="text"/>	<input type="text"/>
180. Epithelial cells	<input type="text"/>	<input type="text"/>
181. RBCs	<input type="text"/>	<input type="text"/>
182. Crystals	<input type="text"/>	<input type="text"/>

MOTION TEST

	1. Yes	2. No
183. Ova	<input type="text"/>	<input type="text"/> _____
184. Cyst	<input type="text"/>	<input type="text"/> _____
185. Occult blood	<input type="text"/>	<input type="text"/> _____

186.Liver Function Test:

.....

.....

187.USG - Abdomen:

.....

.....

188.Protoscopy:

.....

.....

189.Sigmoidoscopy:

.....

.....

CLINICAL SYMPTOMS OF RATHA MOOLAM:

	<i>1. Present</i>	<i>2. Absent</i>
190.Pain in and around the umbilicus	<input type="checkbox"/>	<input type="checkbox"/> _____
191.Bleeding per Rectum	<input type="checkbox"/>	<input type="checkbox"/> _____
192.Anaemia	<input type="checkbox"/>	<input type="checkbox"/> _____
193.Easy Fatigability	<input type="checkbox"/>	<input type="checkbox"/> _____
194.Oedema	<input type="checkbox"/>	<input type="checkbox"/> _____
195.Throbbing chest pain	<input type="checkbox"/>	<input type="checkbox"/> _____
196.Head ache	<input type="checkbox"/>	<input type="checkbox"/> _____
197.Drowsiness	<input type="checkbox"/>	<input type="checkbox"/> _____
198.Yellowishness of Eyes	<input type="checkbox"/>	<input type="checkbox"/> _____

PROTOCOL

A STUDY TO DIAGNOSE KURUTHI MOOLAM THROUGH SIDDHA DIAGNOSTIC METHODOLOGY

By

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G.S.M.C , PALAYAMKOTTAI.

1. BACKGROUND

RAKTHA MOOLAM:-

It denotes the massive bleeding from the Anus. The Massive bleeding is caused due to rupture of the rectal varices in the rectal canal as a complication of portal hypertension

In Yugi Vaithiya Sinthamani, Yugi classified 21 types of Moolam, Raktha moolam is one among the moolam classifications.

YUGI EXPLAINED “ Raktha moolam “ as mentioned below

சேதியாய் தொப்புள் தன்னில் வலித்து நொந்து

சிறுகதிர் போற் பீறிட்டு ரத்தம் வீழும்

மேதியாய் மேனி வற்றி வெளுத்துப் போகும்

மிக்ககைகா ல்சந்து மே சோகையாகும்

மாதியாய் மார் பிளக்குந் தலை நோ வுண்டாம்

மயக்கந்தான் மிகுதியாய்த் தள்ளிப்போகும்

நாதியாய் கண்ணிரண்டு மஞ்சள் போலாம்

நலியும் ரத்த மூலத்தின் பண்பு தானே.

In Raktha moolam, Pitha humour is altered. As a result of this the following symptoms will occur,

Pain around the umbilicus, Massive bleeding from the rectum, analcanal, weight loss, oedema, chest pain, Head ache, Faintness, Yellowishness of eyes.

2. AIM

a) PRIMARY AIM

To Diagnose Raktha moolam through envagai thervu, manikadai nool.

b) SECONDARY AIM

To co-relate Raktha moolam with Nilam, Kaalam, Sothidam.

3. POPULATION AND SAMPLE

Raktha moolam (as explained above under the song). Patients satisfying the inclusion and exclusion criteria mentioned below.

The samples of Raktha moolam patients are selected from O.P. and I.P. departemtns of Govt. Siddha medical college, Palayamkottai, Tirunelveli medical colleges High ground, under the guidance of Faculties and Head of the department of post graduate. NOI NAADAL DEPARTMENT

4.SAMPLE SIZE

A sample of 20 patients will be taken for detailed study.

5. INCLUSION CRITERIA

1. Age – above 40 years
2. Complaints – insidious onset of intermittent bleeding from anus.
3. Willing to give blood and urine specimen for investigations whenever required.
4. Willing to co-operate manual examinations – rectal

6. EXCLUSION CRITERIA

1. Bleeding piles due to General constipation & straining at stool
2. Bleeding piles due to pregnancy
3. Bleeding piles due to Tumours of the rectum
4. Bleeding piles due to Hereditary predisposition

7. CONDUCT :

Raktha Moolam patients satisfying the inclusion and exclusion criteria will be included in this study.

Siddha diagnostic procedure such as Envagai thervu, Manikadai nool, Nilam, Kalam and Sothidam of the patients will be noted.

8. FORM:-

FORM – Diagnostic proforma for Raktha moolam

Formation of Portal Vein

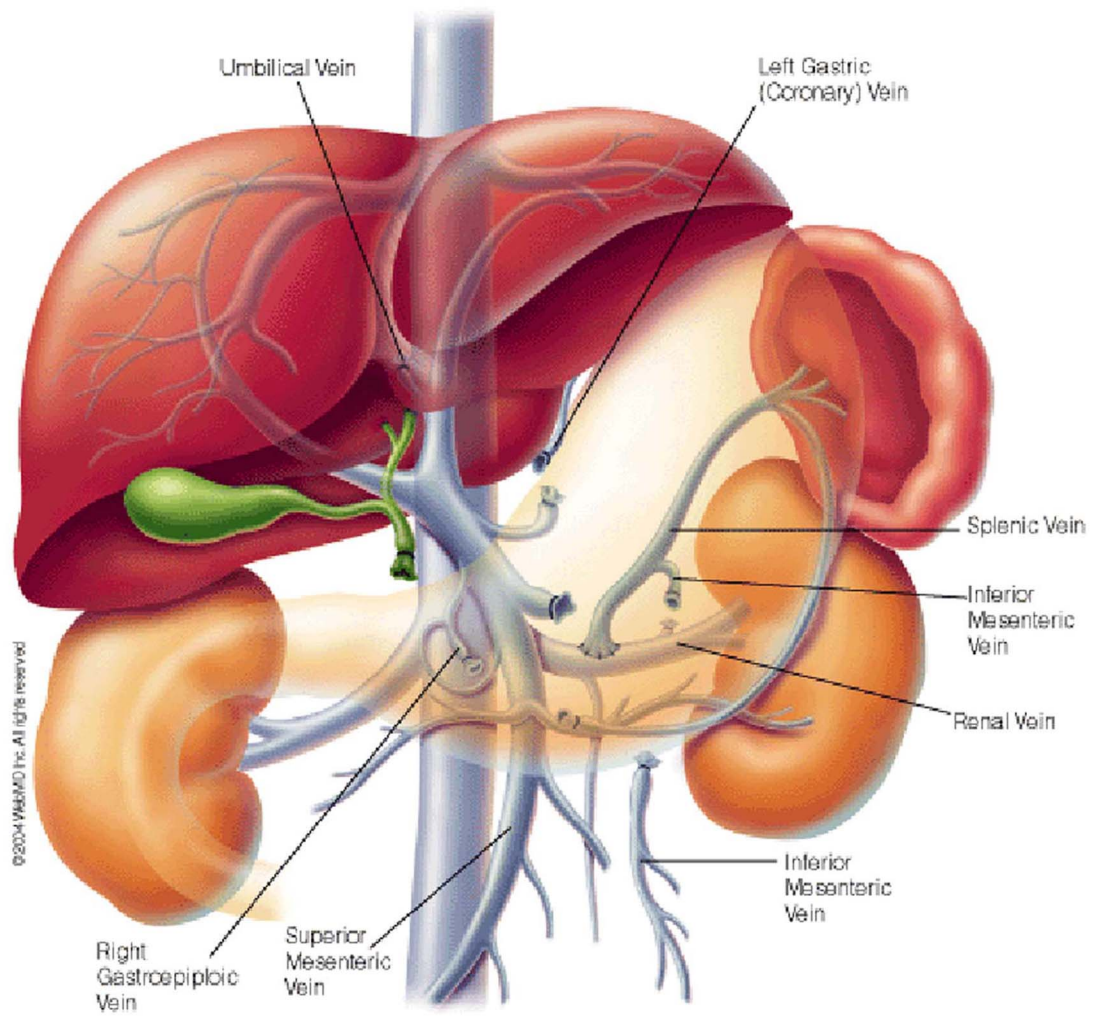


Fig 1

Tributaries of Portal Vein

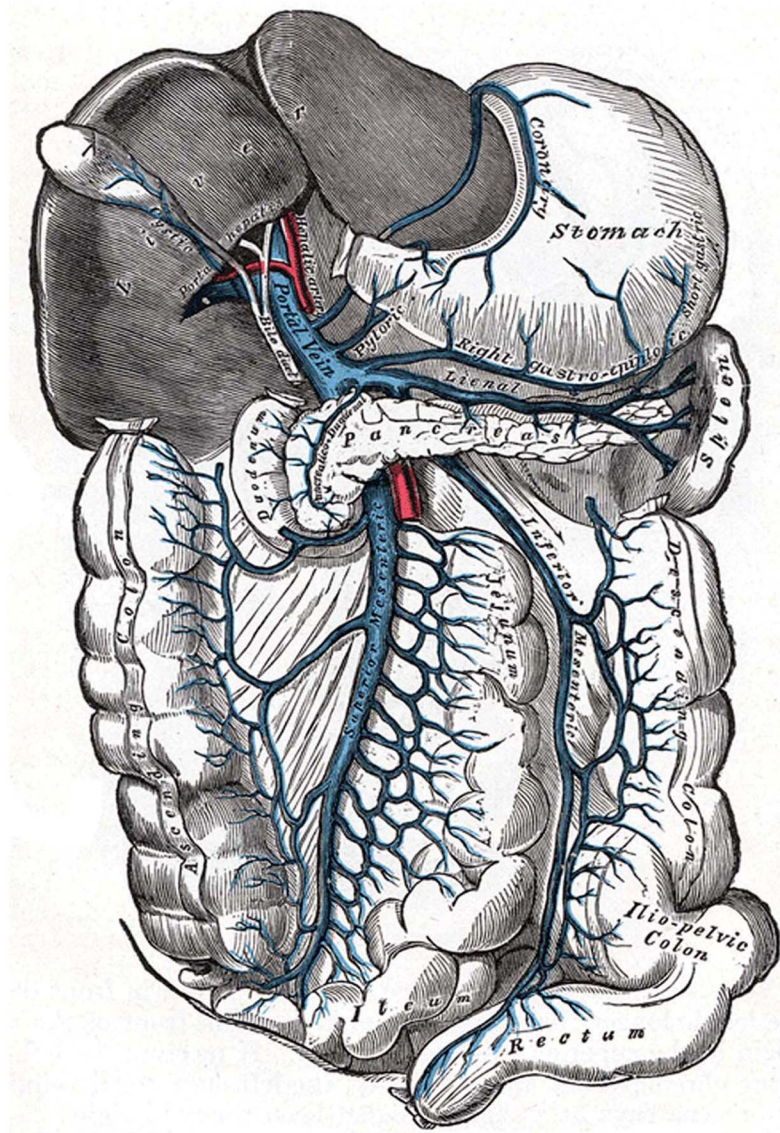


Fig 2

Portal Venous System

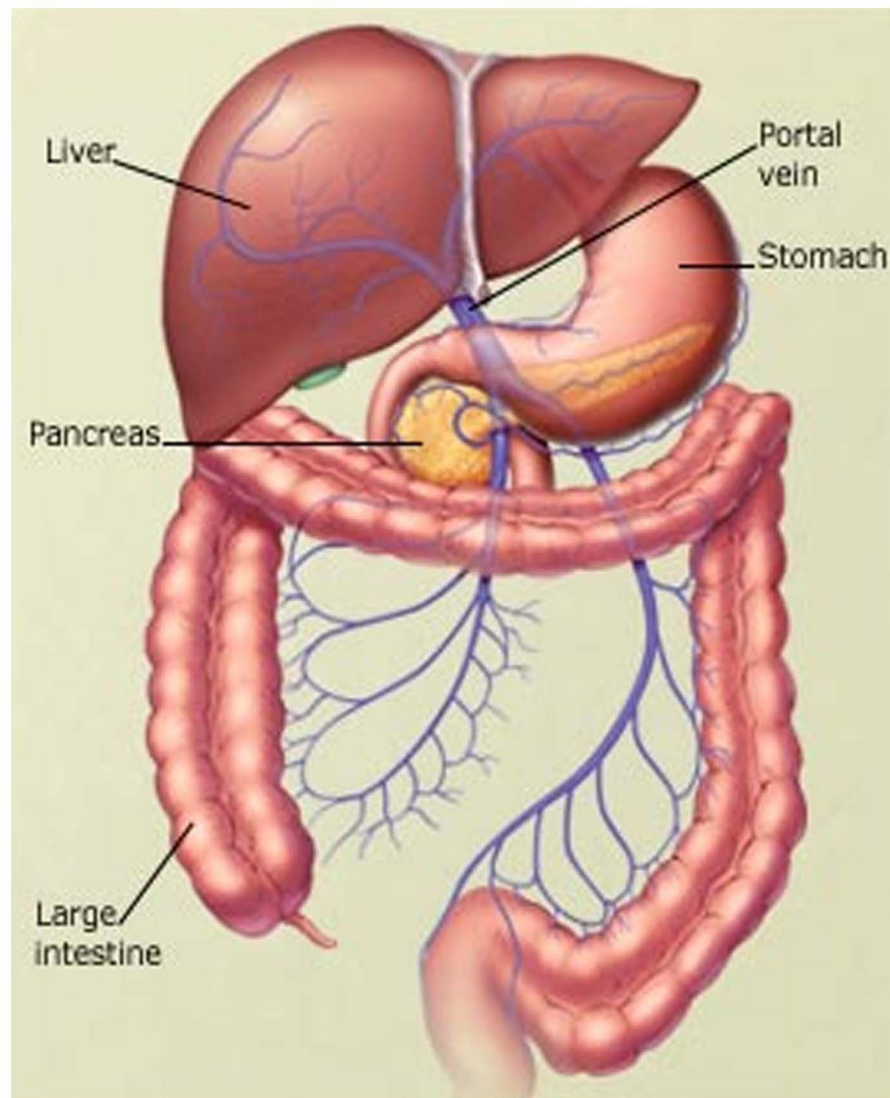


Fig 3

Locations of Haemorrhoids

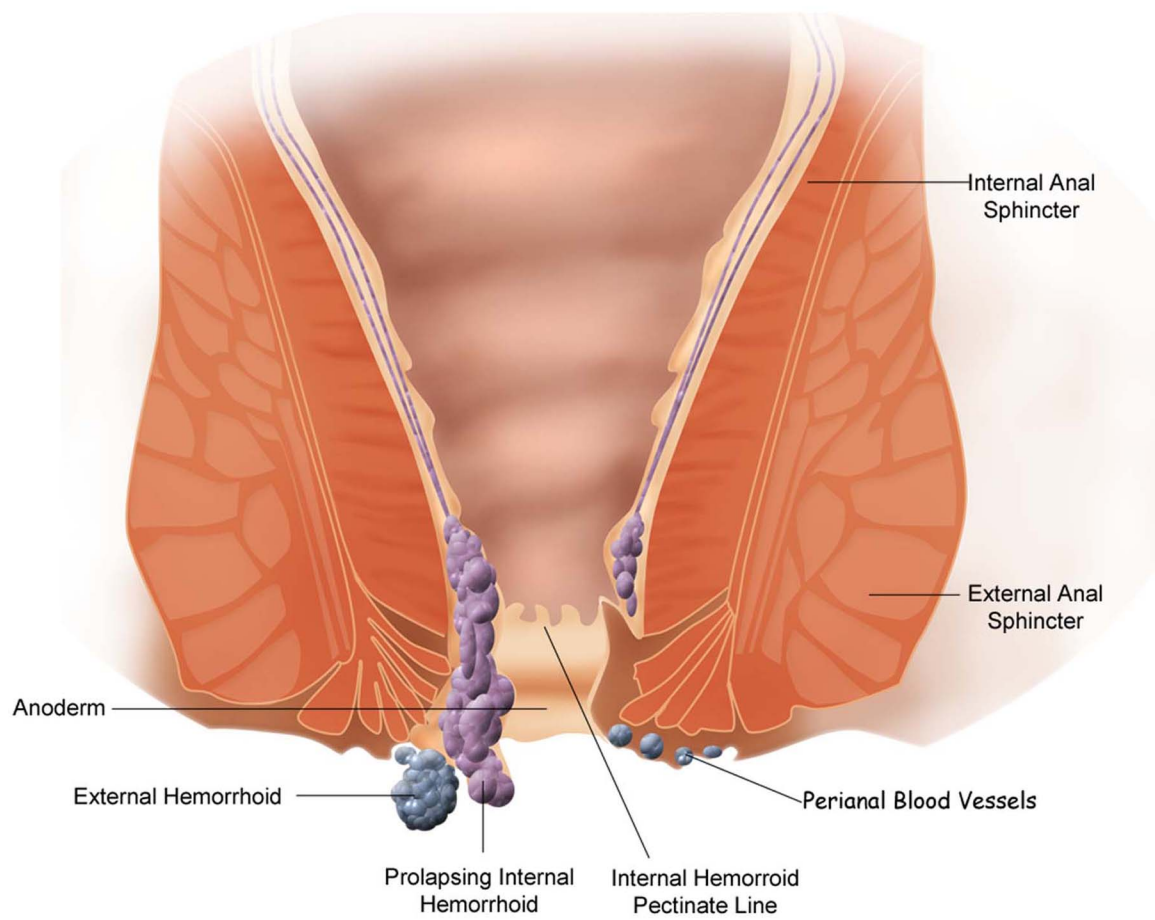


Fig 4

Intra Hepatic Causes of Cirrhosis

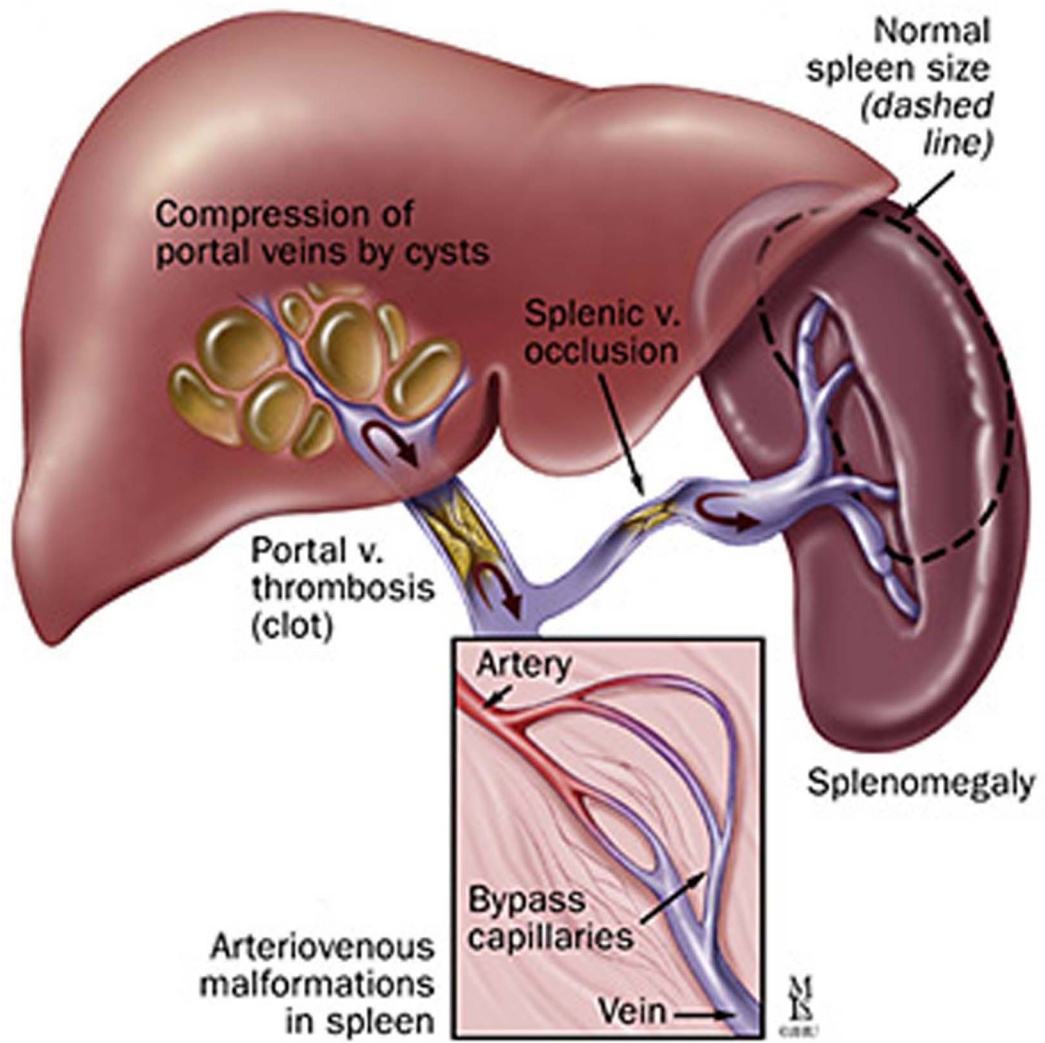


Fig 5

Pathogenesis of Portal Hypertension

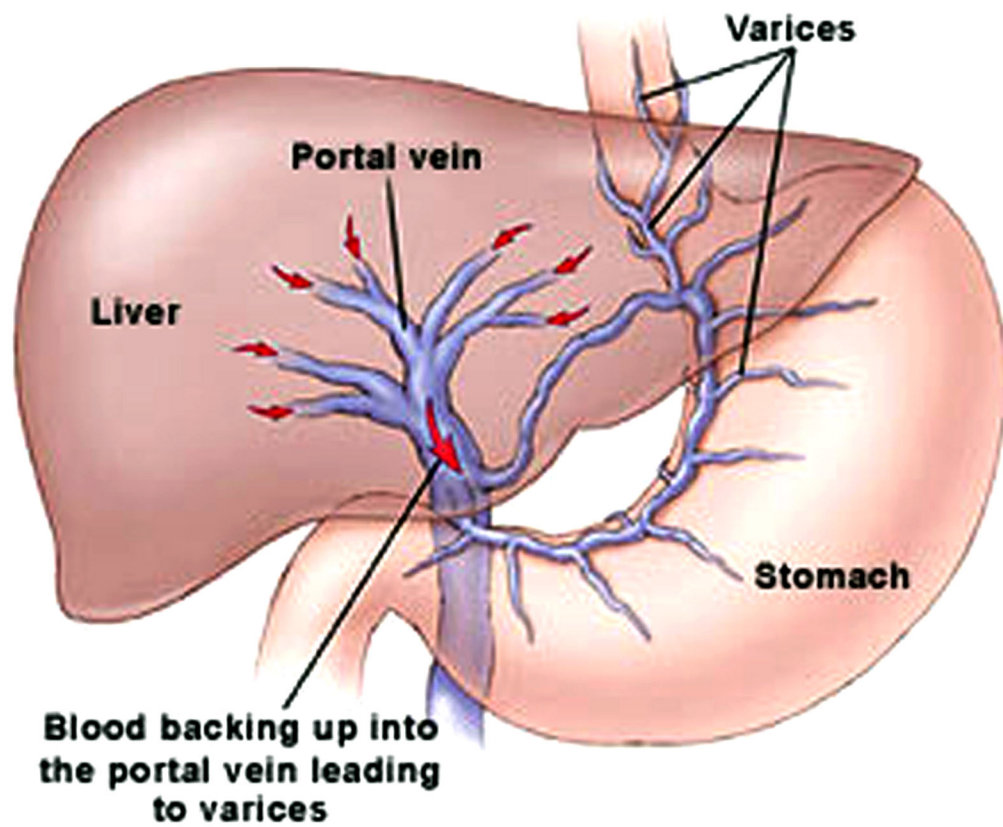


Fig 6

Rectal Varices due to Portal Hypertension



Fig 7

*Direct view of Haemorrhoid seen
on Sigmoidoscopy*



Fig 8



© : 334041

CLINICAL LABORATORY

13-A, Perumal West Car Street, TIRUNELVELI JUNCTION - 627 001.

Name: **Mr. SHANMUGASUNDRAM 45 M****11-6-2003**Referred by **Dr. G. Badari Narayanan M.D. D.M. MACG (USA)****BLOOD**Hemoglobin **8.8 Grams %**
T.W.B.C. Count **7,600 cells/cmm**

Differential Count

P **75%** L **20%** E **5%** ME.S.R. ½ Hour **60** m.m1 Hour **125** m.mUrea **23 mg/dl**Sugar **110 mg/dl**Cholesterol **118 mg/dl**Creatinine **1.2 mg/dl**Amylase **26 U/L**

Bleeding Time

Clotting Time

MANTOUXS.G.O.T. **77 U/L**S.G.P.T. **25 U/L**Alk Phosphatase **510 mu/ml**Gamma G.T. **98 U/L****BILIRUBIN**Total **1.2 mg/dl**Direct **0.7 mg/dl**Indirect **0.5 mg/dl****PROTHROMBIN TIME**Control **15 Seconds.**Test **19 Seconds.****PROTEIN**Total **7.0 g/dl**Albumin **3.7 g/dl**Globulin **3.3 g/dl****URINE** Light yellow colour,
Albumin **Trace** clear sample.Sugar **Nil**Bile Salts **Negative**Bile Pigments **Negative.**Urobilinogen **Positive 1 in 4 dil**Deposits **Pus cells 3-5 and also Granular cast
seen/HPF.****BLOOD : HBS Ag:** **Negative.****H C V Negative.***M. Mohan*
Lab - Technologist**WORKING HOURS : 9.00 A.M. TO 9.00 P.M. SUNDAY HOLIDAY**

SHAKTHI SCANS

Dr. Clara J. M.B.,B.S.,

**Ultra Sonography has its own limitations.
Clinical correlation and repetition on necessity is recommended.**

Thank you for the reference.

Name : Mr. Shanmuga Sundaram 45/M

Date : 16/05/2003.

Ref.by:Dr : Executive Health Check up.

ULTRASONOGRAM OF ABDOMEN:

Liver is moderately enlarged measuring 15.9 cms in the long axis.

Parenchyma shows coarse patchy hypoechoic areas. Surface is irregular. Biliary passages are not dilated.

Portal vein measures 1.37 cms in diameter.

Gall bladder normal configuration. No intra-luminal densities.

Walls are uniformly thick.

Pancreas normal contour and echogenicity.

Spleen is slightly enlarged, measuring 13.2 cms in the long axis.

Kidneys are of normal size & architecture. Right kidney measures 10.5 X 3.8 cm and the left 10.3 X 4.1 cm.

The collecting system is not dilated.

Urinary bladder normal configuration. Trans – Sonic.

IMPRESSION:

1. Hepatomegaly with coarse patchy hypoechoic regions suggestive of cirrhosis liver.
2. Gallbladder shows thick walls.
3. Splenomegaly.
4. Kidneys are normal.



SHAKTHI SCANS

SHAKTHI DIAGNOSTIC CENTRE

Whole Body Doppler Scan System

10/5, NORTH BYE PASS ROAD, HARSHA COMPLEX, VANNARPETTAI, TIRUNELVELI - 3. PH : 2500843

Thank you for the reference.

Name : Mr. Shanmuga Sundaram 45/M

Date : 11/06/2003.

Ref.by:Dr : G. Badarinarayanan., MD,DM,(GAS).,

ULTRASONOGRAM OF ABDOMEN & COLOUR DOPPLER:

The portal vein measures 1.41 cms in diameter at the porta hepatis.

Flow is hepatopetal. Spontaneous signals with nophasic variations noted.

Hepatic veins are of normal caliber.

Dilated veins are seen in the region of the lesser omentum .

No recanalisation of the para umbilical vein .

Splenic vein shows spontaneous phasic signals.

IMPRESSION:

- 1. Colour Doppler shows evidence of portal hypertension.*

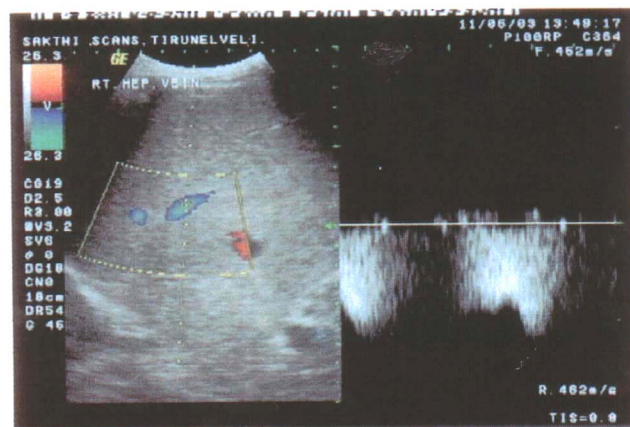
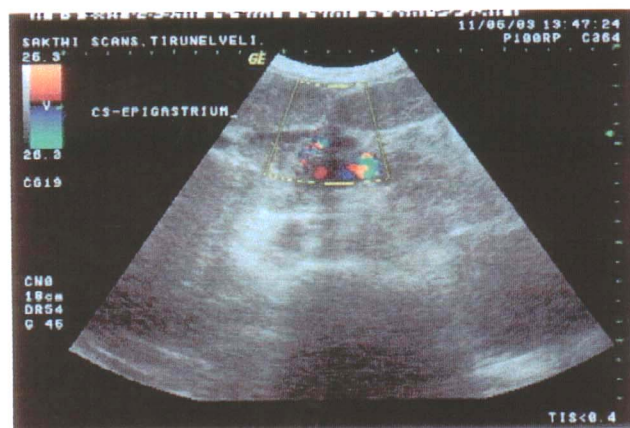
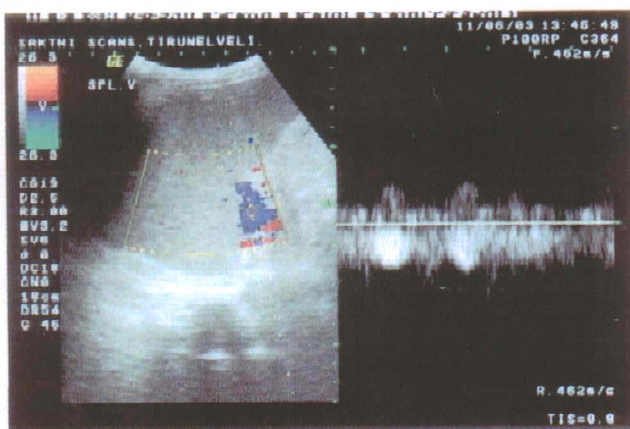
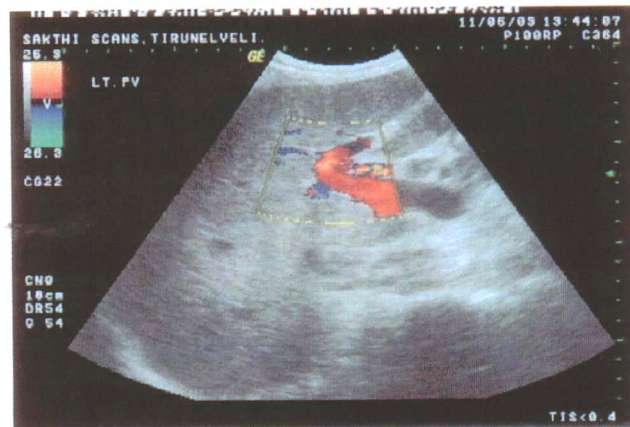
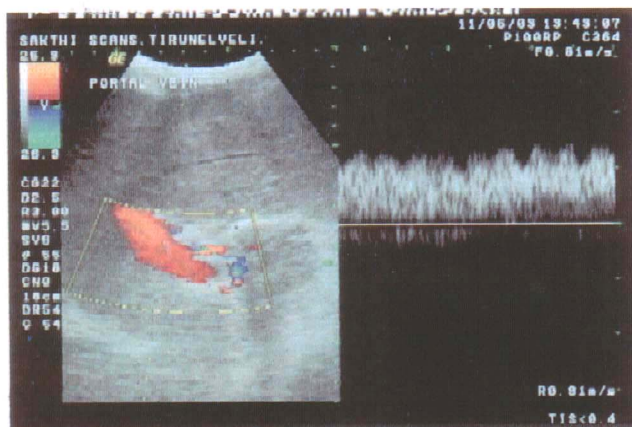


Dr. Clara Jeyakumar. MBBS.,

This imaging modality has its limitations. Kindly correlate clinically

SHAKTHI SCANS
10/5 BYEPASS ROAD, VANNARAPETTAI,
THIRUNELVELI-3

Patient Name	MR. SHANMUGA SUNDARAM	Age	45 Years
Patient ID	A000009294	Sex:	Male
Ref. Doctor	BADARINARAYANAN MD.DM(GAS)	Visit Date	11 June 2003





SHAKTHI LABORATORIES

SHAKTHI DIAGNOSTIC CENTRE

10/5, "Harsha Complex", Vannarpettai, TIRUNELVELI - 627 003. ☎ : 2500843, 2501136

Patient ID: 66 Visit Date: 31-Mar-08
Patient Name: Mr. Shunmuga Sudaram Age/Sex: 50/M
Ref By: Dr. G. Badri Narayanan MD., DM.,

COMPLETE HAEMOGRAM

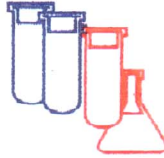
(by ABX Micros-60, Haematology Analyser)

	RESULTS	UNITS	REFERENCE RANGE	
			MALE	FEMALE
HAEMOGLOBIN	3.8	grams/dl	13.5 to 17	12 to 15.5
TOTAL WBC COUNT	5,200	cells/cumm	4,000 to 10,000	
DC- POLYMORPHS	66	%	40 to 65	
LYMPHOCYTES	25	%	30 to 50	
EOSINOPHILS	9	%	2 to 8	
MONOCYTES	0	%	2 to 4	
BASOPHILS	0	%	Less than 1	
E.S.R. ½ HOUR		mm		
1 HOUR		mm	5 to 15	5 to 20
HAEMATOCRIT (P.C.V.)	14.0	%	40 to 52	38 to 45
PLATELET COUNT	1,27,000	cells/cumm	1,50,000 to 4,00,000	
TOTAL RBC COUNT	1.50	millions/cumm	4.6 to 6.0	4.2 to 5.4
MCV (Mean Cell Volume)	33	fL	76 to 96	
MCH (Mean Cell Haemoglobin)	25	pg	27 to 31	
M.C.H.C.	27	grams/dl	32 to 36	
RDW (Red cell Distribution Width)	11.3	%	11.5 to 14.5	
TOTAL NEUTROPHILS	3,432	cells/cumm	2000 to 8000	
TOTAL LYMPHOCYTES	1,300	cells/cumm	1,200 to 5,000	
TOTAL EOSINOPHILS	468	cells/cumm	40 to 440	
TOTAL MONOCYTES	0	cells/cumm	Upto 300	
TOTAL BASOPHILS	0	cells/cumm	Upto 40	
M.P.V. (Mean Platelet Volume)	7.6	fL	6.5 to 11.0	
P.D.W. (Platelet Distribution Width)	12.5	%	10 to 18	

PATHOLOGIST/BIOCHEMIST



Ph : 0462 - 2581630



CLINICAL LABORATORY

121, Trivandrum Road,
Near Vaikkalpalam Stop,
Palayamkottai, Tirunelveli - 627 002.

Mr.S.Shanmuga sundaram

50/M

2.4.08

Ref. By.Dr.G.Badarinarayanan M.D., D.M., (Gastro)

MOTION ANALYSIS

Appearance :Brown colour, Blood stained sample.

Microscopic : Ova - Nil Cyst- Nil

Fat Globules : Negative

Occult Blood : **POSITIVE**

Lab - Technician 



☎ : 0462-2581630



CLINICAL LABORATORY

121, Trivandrum Road,
Near Vaikkalpalam Stop,
Palayamkottai, Tirunelveli - 627 002.

AVB *8471

Date : 31-03-08

Name : **Mr. S.SHANMUGA SUNDARAM**

Age : 50 / Male

Ref By: **Dr. G.Badarinarayanan M.D., D.M., FACG (USA)**

LIVER FUNCTION TEST

BILIRUBIN - TOTAL	... 2.7 mg/dl
DIRECT	... 2.0 mg/dl
INDIRECT	... 0.7 mg/dl

S.G.O.T	... 15 U/L
S.G.P.T	... 288 U/L
ALK. PHOSPHATASE	... 160 U/L
GAMMA G.T	... 60 U/L

PROTEIN - TOTAL	... 6.2 gm/dl
ALBUMIN	... 2.8 gm/dl
GLOBULIN	... 3.4 gm/dl

PROTHROMBIN TIME - CONTROL	... 15 Secs
TEST	... 17 Secs

PLASMA AMMONIA	... 90 mmol/L
HBs Ag.	... NEGATIVE


LAB-TECHNOLOGIST



SARANYA ENDOSCOPIC SERVICES

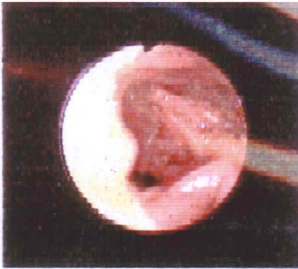
AVB GASTRO CARE CLINIC, PALAYAMCOTTAI-627002

Ph: 2581630 .E-Mail:badarivl@dataone.in

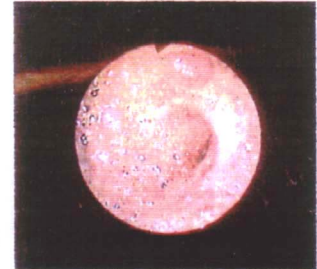


Name	SHANMUGASUNDARAM S MR	Age / Sex	50 Male	ID	066	02-Apr-2008 7:11:11
Ref By	RAMASWAMY V DR MD	Premedication	Nil	Anaesthesia	Xylocaine Topical Spray	
Cooperation	Cooperative	Biopsy	Nil	Instrument	Olympus Video Endoscopic System	

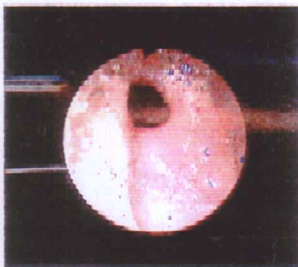
Upper GI Endoscopy Report



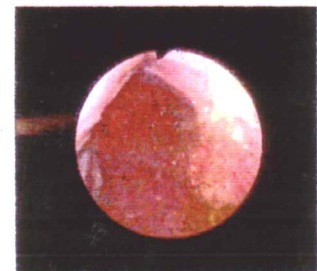
11th Part of Duodenum



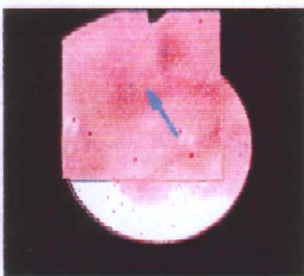
1st Part of Duodenum



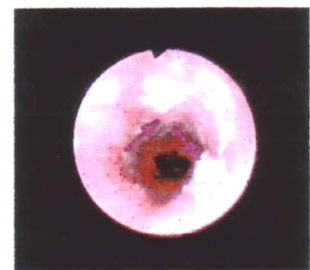
Pyloric Orifice



Healthy Gastric Mucosa



Gr.I. Oesophageal Varices (Magnified)



Diffuse Oesophageal Candidiasis

Impression

Gr.IV. Oesophageal Varices / Diffuse Oesophageal Candidiasis.

Dr. G. Badari Narayanan



SARANYA ENDOSCOPIC SERVICES



AVB Gastro Care Clinic

121, Thiruvananthapuram Road,
(Opp. Vaikaalpalam Bus Stop)
Palayamkottai - 627 002.

Phone : 2581630

Fax : 91-462-2573213

E-mail : badaritvl@dataone.in

CONSULTATION BY APPOINTMENT

GASTRO - ENTEROLOGY WING

SIGMOIDOSCOPY REPORT

Name : Mr. S. Shanmugasundaram

Age : 50 Sex : M Date : 2-4-2008

RECTAL EXAMINATION :

- ☐ Sphincter Tone
- ☐ Anal Verge
- ☐ Mucose
- ☐ Finger Stall
- ☐ Pile - Mass
- ☐ Mass - lesion
- ☐ Miscellaneous

Extensive Internal Pile mass present.

PROCTO - SIGMOIDOSCOPE :

INSTRUMENT : WELLCH ALLYN / RIGID / U.S.A Make STANDARD 25 cms.

- ☐ Passed upto
- ☐ Mucosa
- ☐ Blood
- ☐ Mucus
- ☐ Pile - mass
- ☐ Mass lesion
- ☐ Faeces
- ☐ Foreign body
- ☐ Miscellaneous
- ☐ BIOPSY

25cms.

Extensive Internal Pile Mass with
Bleeding tendency.

Nil.

IMPRESSION : Extensive Internal Pile mass with Bleeding tendency.

Dr. G. Badarinarayanan

M.D.D.M.F.A.C.G. M.O.M.G.E. (Gastro enterology)

Member Indian Society of Gastro enterology

Member, Society of Gastro Intestinal Endoscopy of India

Fellow, American College of Gastro enterology

Member of Organisation Mondiale De Gastro enterology

Formerly Gastro Enterologist, Endoscopist

Tirunelveli Medical College Hospital

Consultant Gastro enterologist



SSS RESEARCH LABORATORIES

NO-10, S.N. HIGH ROAD, (NEAR TOWN ARCH), TIRUNELVELI TOWN - 627 006. PH : 2330266

Referred by Dr.

Dr.G.Badarinarayanan MD DM MACG

Thank you for the reference

Ref. No. : 2599/2003

SURGICAL PATHOLOGY REPORT

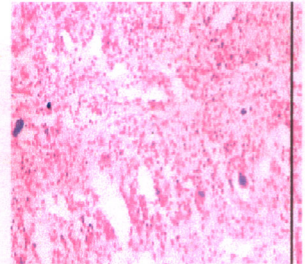
Name of Patient : Mr.S.Shanmugasundaram
Age & Sex : 45/M
Date of accessioning : 23.5.2003
Date of Report : 27.5.2003
Specimen accessioned : Biopsy Liver

Macroscopic Description

Specimen of tiny linear fragments of grey white tissue
0.3cms


Microscopic Description


Section studied shows liver tissue with loss of lobular architecture with clusters of hepatocytes separated by bands of fibrocollagenous with portal triads surrounded by chronic inflammatory cell infiltration.



Diagnosis

SUGGESTIVE OF A POST NECROTIC CIRRHOSIS OF LIVER


Dr. K. Shantaraman M.D.
Consultant Pathologist


Dr. K. Swaminathan M.D.
Consultant Pathologist

Dr. J. Suresh Durai B.Sc., M.D.
Consultant Pathologist

SURGICAL PATHOLOGY